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ABOUT

SOUTH DAKOTA:

AN OFFICIAL ENCYCLOPEDIA

CONTAINING USEFUL INFORMATION IN HANDY FORM FOR SETTLERS, HOME-SEEKERS AND INVESTORS, IN REGARD TO SOIL, CLIMATE, PRODUCTIONS, ADVANTAGES AND DEVELOPMENT—AGRICULTURAL, MANUFACTURING, COMMERCIAL AND MINERAL.

THE GREAT SIOUX RESERVATION

RECENTLY OPENED FOR SETTLEMENT. THE GOVERNMENT LAND LAWS, ETC.

PUBLISHED BY THE

COMMISSIONER OF IMMIGRATION,

Under Authority Granted by the State Legislature.

STATE OF SOUTH DAKOTA,

DEPARTMENT OF IMMIGRATION AND STATISTICS.

F. H. HAGERTY, Commissioner, Aberdeen, S. D.

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SOUTH DAKOTA.

"DESTITUTION" IN SOUTH DAKOTA.

THE FACTS REGARDING THE PARTIAL CROP FAILURE OF 1888–9, AND THE CONSEQUENT SCARCITY OF GRAIN IN SOME COUNTIES IN 1890.

For the past few months reports of a certain damaging character have been circulated throughout the country, with reference to the alleged "destitution and suffering" in North and South Dakota, which was caused by the "failure" of crops in 1888–1889. Self-styled "special correspondents" have written wordy and shrieky accounts of the "terrible" condition of things here, the story has grown with every repetition, and the condition of our people has been represented to the unwary to be miserable in the extreme. The evil has been increased by certain unscrupulous persons in our midst who, seeing a rain of porridge in prospect, got ready to hold up their platters. In the condition commonly known to Western people as "hard-up," these people have represented their own individual condition to be that of a majority of the people of the state, and to have been brought about by circumstances over which they had no possible control.

While a great evil has been done in slandering the character of our state, a greater has been perpetrated in deceiving and imposing upon the generous and charitable nature of people abroad. The exaggerated reports of destitution in both Dakotas, which have been so widely published, have been given a seeming basis by two facts: *First*, that self-constituted begging committees and agents, representing certain very limited communities, have visited or sent abroad for aid. *Second*, that reckless and unscrupulous press correspondents, for no other apparent reason than to get up something sensational for their papers, have sent off highly-colored reports and overdrawn accounts of the situation.

There has never been the slightest disposition on the part of the authorities, or on the part of any honorable citizen, to misrepresent the facts in the case as to the hard times in certain portions of Dakota.

On the first of November, 1889, this office sent out a circular setting forth the situation, which received the official indorsement of the governors of both South and North Dakota, and from which the following extracts are made:

"This year drought has prevailed, extending from the Great Lakes to the Pacific ocean, it being even worse in the extreme West than here. President Oakes, in his report to the stockholders of the Northern Pacific Railroad, says: 'In the region east of the Missouri river the average crop per acre is not equal to that of some previous years, but it is far ahead of the general crop of 1888 in quantity, and the quality is of the highest grade. In Washington the average yield of grain per acre, owing to drought, will probably be not more than fifty per cent of the preceding year's crop.'

"This claim supports the estimates made by this office of the crop returns in North Dakota, Mr. Oakes basing his statement on the reports of the best information obtainable through agents of his company and others.

"The uniform success which early attended all features of husbandry and the abundance of cheap and free lands resulted in rapid settlement. Thousands came without general knowledge of life on the farm. Many came with little or no means and hoped for the success attained by those who had preceded them. Many came from foreign lands, and while some prospered, despite their inexperience under new conditions, others failed. Failure is not to be wondered at when it is known that our population is made up of widely diversified classes and people. Men came to renew their health in our incomparable climate. Men came from Iceland, from Norway and Sweden, from the British Isles, from all parts of Europe, and from every American state to get our free lands and make homes.

"This much as prelude to the denial we make to the senseless, but we hope not malicious, stories extensively telegraphed over the country during the last month that thousands are on the verge of starvation in the two Dakotas.

"It is not to be understood that the existence of some destitution in Dakota is denied. It does exist. There are districts in some of the counties where the people have been unfortunate enough to lose two successive crops, and they are in very reduced circumstances; in most cases, however, they are men who came poor in purse and unskilled in farming. How natural for those in grievous want to appeal to the large and wealthy trade centers for help, even with well-filled larders in sight belonging to more prosperous neighbors."

That there should be occasional local crop failures in a region nearly equaling the combined area of all New England, New York and Pennsylvania, is not strange. In every state, every year, there are local crop failures, from one cause or another. Sometimes the area is restricted to a few square miles, and sometimes it extends to over half the state. Where those affected by the failure are provided against such emergencies by reason of their abundant means, and the nearness of friends whose ability and disposition to aid them are well known, they do not greatly feel the effects of the famine; but where these conditions are lacking, distress ensues until relieved. The matter attracts but little attention and seldom gets into print.

Let any citizen of an older state decide whether or not these statements are true. How common it is to hear that the corn crop is short here, the wheat crop a failure there, and that the oats will not pay for cutting somewhere else. Among agriculturists, too, as among every other class, there are the unskillful, the improvident, the indolent, and the shiftless. When these are the victims of crop failures, they are in sore plight indeed.

In South Dakota the crop failure and its consequent baneful results were confined almost entirely to several counties in various parts of the state. In 1888 there was a dry season of unusual length in these counties, and the wheat crop was badly affected. Two dry seasons seldom come in succession, but in 1889 there was a repetition of the drought of the previous year. In a number of instances the wheat only grew to the height of a few inches, and was not cut at all. In a majority of cases the crop was harvested, but the grain was of poor quality and small yield. But in very many instances there was a fair crop in 1889.

In some counties the crops were only injured by the dry weather; in but few cases were they entirely destroyed, and here the older settled farmers, especially those who had been blessed with good yields, were able to provide for their unfortunate neighbors. Many of the latter in these and all the other counties of the state came to the country poor, with but little means or supplies on hand and scarcely any provision for the future. Had there been a favorable season in 1889, these people would have come out of it in excellent condition, and been enabled to look at the future with confident expectation. In ten years from 1889 a similar crop failure in South Dakota will not be felt, and indeed will scarcely be commented upon.

The worst injury was done to the wheat crop, which in many fields was entirely ruined, and much of that which was harvested was found to be unfit for seed. This made the condition of the poor newcomer, who had invested everything in his first crop, really hard and deserving of sympathy; and to add to his misfortune was the fact that he had no provender to feed his stock till the grass came and while he was tending his crop, and no money to buy any. Certain other farmers were as badly scorched as the newcomers, but they had been longer in the country and were provided against emergencies.

In very many cases each county has taken care of its own unfortunate people. But in others assistance has been asked for from abroad. This has been, when help has been asked outside of the state, for the reason that the aid was so generously and freely offered, and was ready for use before a majority of our people knew of the real condition of affairs. The relief would have been promptly afforded by the state authorities but for the inhibitions of section 2 of article XIII of the Constitution, which provides that debts for extraordinary expenses are "never to exceed, with previous debts, in the

aggregate $100,000, and no greater indebtedness shall be incurred, except for the purpose of repelling invasion, suppressing insurrection," etc., and this amount, which made our state helpless in an official capacity and forced us to accept the financial assistance tendered by our Eastern neighbors, had been reached by the debt inherited from the territory. Nearly all of the assistance beyond the state has been for the purpose of aiding farmers to procure good seed wheat and feed for stock till grass comes, and by far the greater part of this assistance has been rendered by the people of St. Paul, Minneapolis, Chicago, Sioux City and Omaha, who know fairly well what the facts are, and the amounts subscribed have been collected by a responsible committee headed by the governor of the state. Those people aiding by financial subscriptions, however, regarded it not as charity, but as a commercial investment, which would then be repaid many fold by their close trade relations.

The extent and character of the destitution have been grossly exaggerated and the facts shamefully distorted. "A lie which is part the truth is a hard matter to fight." There were some cases of partial destitution in South Dakota, but the cases were not nearly so numerous nor the destitution half so complete as the mendacious correspondents reported, and the unscrupulous beggars at home affirmed. Of the latter class there are a number here, who for the most part are unwilling to work hard, even to get a start, and are willing to live by the easiest methods presenting themselves. Following the alarm spread by the reckless newspaper correspondent, came the whimpering letters of the beggars. Very many of this gentry, when their names are known, are easily shown to be impostors, nothing less and nothing else.

For example, in Hughes county certain individuals addressed begging letters, not only to individuals, but to newspapers in the east and elsewhere, soliciting aid. The Blunt *Advocate*, published in Hughes county, in its issue of March 8, 1890, denounces these letter-writers by name as "impostors, blacklegs, liars, beggars, canting hypocrites and villains," and proves its assertions. Of one individual, a Mr. B., who wrote East for help for himself and family, the *Advocate* shows that he had sold during the winter three hundred dollars' worth of hay for cash, and had provender enough left to feed thirty head of cattle and several horses, besides supplies for his family, etc. Of another, a Mr. E., who had written to strangers for assistance for himself and his "little children," who were represented to be in a most pitiable condition, the *Advocate* shows that the youngest of these "little children" is fifteen years of age; that two of the older boys "were sentenced to jail last spring for larceny, one for thirty and the other for sixty days, and the old gentleman was accused of complicity in the theft." The paper asserted that the family was in comfortable circumstances and absolutely above want. The people

of Hughes county held an indignation meeting in the town of Blunt on March 8th, and soundly denounced "the vile slanders that are being circulated in Eastern papers, which reports falsify the condition of the people in Hughes county," and also reprobated in severe terms the authors of the reports.

But the quality of charity, like that of mercy, "is not strained;" and the supplies sent into South Dakota by good and well-meaning people from abroad were distributed among the frauds and pretenders equally with the deserving. It was partly to remedy this state of affairs that the state authorities took charge of the matter, and under their supervision and regulation there is no chance for imposition and deception, while all necessary relief will be afforded. About all that is demanded is a good supply of sound, well-matured seed grain, and this has been arranged for in the greater part by the county authorities, who, in some cases, have issued the bonds of the counties for the purchase of the necessary quantity. Most of these bonds have already been negotiated, practically at par, in St. Paul and elsewhere. In this connection it is proper to say, that in referring to the "Dakota Destitution," people are likely to forget that there are now two Dakotas, and that by far the greater destitution is to be found in North Dakota.

The authorities and all of the best citizens have met the exigencies of the occasion very properly. Realizing that a disaster had befallen a portion of our people, efforts were at once made to relieve them. On the part of those for whose statements the public should have waited before forming a decided opinion as to the character and extent of the destitution, there has been no attempt at concealment or exaggeration — neither lying about the situation nor whimpering and whining over it.

The railroads of the state, and some roads out of the state, have dealt very generously with the unfortunate settlers. They have carried in free of charge grain for seed and supplies for feed, and rendered with all good will every assistance requested or expected of them. Right nobly has the governor of the state, Hon. Arthur C. Mellette, acquitted himself on this occasion. The unfortunate drought sufferers and those sympathizing with them will ever remember him and those who strengthened his hands with grateful appreciation. At a recent meeting at Huron of representatives from every county in the state suffering from the effects of the dry season of 1889, resolutions were adopted without dissent heartily thanking the railroads "for all they have done for us," and saying of our governor:

"We heartily indorse the course pursued by Gov. Mellette in our behalf, and to him we tender our sincere thanks; and we also thank the members of the several committees and those persons who have spent liberally of their time and money for our relief."

Other public meetings have in like manner shown the apprecia-

tion and gratitude of our people for the labors of our most worthy chief magistrate in their behalf.

Emigration to South Dakota from other states of the Union is greatly desired, but no false or unfair means will be resorted to to obtain it. We may exhibit pardonable enthusiasm in speaking of the state wherein we have found so much to admire, but we will be careful to avoid all willful misrepresentation for the purpose of deceiving any one. It is a fact, that while we believe South Dakota to be a "goodly land" with very many superior advantages, yet it is not altogether a "land of pure delight." There are discomforts here as elsewhere. Some portions of the state are as unproductive as portions of Missouri and Ohio. Some of the "bad lands" are of as little value as the "craw-fish" lands of Illinois. Sometimes the Lilliputian mosquitoes of this state are as hungry and persistent as their Brobdignagian brethren of Arkansas. Sometimes rain is delayed, and crops are cut short, as in any other state.

The existence of drought, and the fact that there was a partial crop failure in portions of the state in 1888-1889, cannot be denied. But that such seasons are common here, can be most successfully denied and disproved. In 1887, when the number of people and the aggregate acreage were much less than in 1889, there were produced in the territory at large the enormous amount of *sixty-two millions of bushels* of wheat, and other crops in proportion. It cannot be denied that the poor and the destitute are among us; they are everywhere. "The poor ye have always with you." It is quite safe to say that during any winter season supplies may be sent to any section in the United States, and plenty of people found ready to snap them up.

It was to have been expected that with the early settlement of Dakota there would be many inconveniences and discomforts, and perhaps some real suffering. Pioneer life implies all these. Every intelligent settler of a new country expects to "rough it" for at least a few years. But the troubles of the pioneers of South Dakota have been insignificant and trivial, as compared with the trials and hardships endured by first settlers generally and the pioneers of America everywhere.

The Pilgrim Fathers and the Jamestown colonists had their "famine years." In the pioneer days of the Mississippi valley the settlers, for many years, endured hardships quite worthy of the name. Often they were weeks without breadstuff of any kind. Their principal food at all times was the wild meat of the forest. Corn meal was a luxury, and flour was never seen. Men, women, and children were clad either in buckskin or the coarsest and plainest homespun. There were no schools, no churches, and for a long period none of the conveniences of civilization. Crop failures were common; indeed they were the rule. The settlers were constantly menaced by famine and by the blood-thirsty savages, and were far

beyond the help of relief societies. When distress came they were forced to endure it and to relieve themselves by their own exertions. But after all they triumphed. They lived, many of them, to see their toils recompensed and their labors rewarded, and to see established among the bright sisterhood of states the grand commonwealths of Ohio, Illinois, Michigan, Kentucky, Tennessee, and Missouri.

In the year 1826, in the early settlement of Missouri, there was a great flood in the Missouri river, along which a majority of the settlers in the interior of the state were located. Nearly all of the inhabitants were "drowned out," their crops impaired, and their improvements washed away. Among the settlers were many Pennsylvanians, Marylanders, and Virginians. Some of these hastened to their former homes, declaring that Missouri was a land of floods and deluges, fit only for the abode of amphibians. In 1829 there was in the same quarter a protracted season of drought. No wheat was raised and but little corn. Back to the older states from whence they came fled the timid and the fearing, proclaiming that Missouri was a land where drought prevailed and nothing could be raised but "a dust." In 1831, at Christmas, a deep snow fell which eventually reached the depth of 34 inches on a level, and which remained on the ground until late in March. Such a snowfall probably never before occurred in the state, and certainly never has since. Certain new settlers from the far southern states hastened back to their old homes, declaring Missouri to be an hyperborean region, where snow fell *every* winter in December to a depth of *three feet* and lay until March, and these stories kept many a Carolinian and Georgian out of the state. And now along the Missouri river, in Missouri, is one of the best settled and most valuable portions of the Union, abounding in cities and towns, filled with a thriving, intelligent population. Every other state has had a similar experience.

Dakota, in 1889, had a second season in succession of dry weather and a shortage of crops. Upon many the injury was severe. Sensationalists and designing ones exaggerated the mischief done and distorted the facts, and a few faint-hearted and weak-spirited people despaired and left the state. But the plucky remained, looking the facts squarely in the face, and thanking God that the situation was not worse. Here was a country with all the belongings of a high civilization; with no point in the district settled as far as twenty-five miles from a railroad; with churches, school-houses, newspapers, banks, and manufacturing establishments; with splendid soil and an incomparable climate — and this country must not be abandoned without a mighty effort to possess it permanently.

One swallow does not make a summer, nor one dry season a Sahara. South Dakota is destined, and that right speedily, to become one of the best states in the Union in all respects. It is depreciated now in

certain quarters, but so has been every other state west of the Alleghanies. It has the resources, the qualities, and the position in its favor. Its manifest destiny is success. Fortunate will be those who find their homes and abiding places within its borders while there are time and opportunity to select the choicest locations. Happy will be he who will be of the first among her people, and shall fight her battles and partake of all of her vicissitudes, and live until his hands have helped to achieve the victory, and until his eyes have seen the glory.

POSITION AND DESCRIPTION.

South Dakota is one of the new members, as it is one of the most important, of the group of commonwealths known as the Northwestern States. Its northern boundary is about two hundred miles from British America and its extreme western limit is distant, in a direct line, about nine hundred miles from the Pacific ocean.

Boundaries.—The state is bounded on the north by the 7th standard parallel, which separates it from North Dakota; on the east by Lake Traverse, Big Stone lake, the Big Sioux river, and the meridian of 96° 20′ west of Greenwich, which separate it from Minnesota and Iowa; on the west by the Greenwich meridian of 104°, which forms the line between it and the State of Montana and the Territory of Wyoming, while its southern boundary is the 43d parallel of north latitude and the Missouri river, which separate it from the State of Nebraska. The southern boundary line is therefore on the parallel of Detroit, in Southern Michigan, Boston, Massachusetts, and the South of France.

Comparative Area.—The state extends about 360 miles east and west, is about 225 miles north and south, and has an area of 76,620 square miles, or 49,036,800 acres. Perhaps a good idea of the state's size and extent may be gained from a comparison of its area with that of other states of the Union. It is one and one-fourth times larger than the aggregate area of the six New England States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut; more than one and one-half times as large as either Pennsylvania or New York; as large as both Ohio and Indiana; much larger than New Jersey, Delaware, Maryland, and Virginia combined; almost twice as large as either Kentucky or Tennessee; nearly one and one-half times as large as Illinois, etc. Compared with foreign countries it is one and one-half times as large as England; seven times as large as Belgium; more than five times as large as Denmark; six times as large as Holland; five times as large as Switzerland; more than one-half as large as Norway; nearly one-half as large as Sweden; more than one-third the area of France, etc. In a region of such vast expanse, so situated, the advantages must be

varied and suited to all desires, while the possibilities are practically unlimited.

Topography.—The general topography of the state is that of an extended, undulating plain. There are numerous plateaus and table lands, and east of the Missouri river the level and rolling sections predominate. West of the Missouri river the same general features prevail, except that hills and buttes are more numerous, and these elevations finally culminate in the southwest in the rugged, upheaved district known as the Black Hills. While this region is partly in Wyoming Territory, the greater and more important portion, comprising an area of 4,000 square miles, lies in the State of South Dakota.

NATURAL DIVISIONS.

The natural divisions of the state are commonly classified into the Missouri valley, the Big Sioux valley, the James valley, Central Dakota, the newly opened Sioux Reservation and the Black Hills. These divisions may be briefly described as follows:

The Missouri Valley, which takes its name from the largest and most important river of the state, and of the United States as well, comprises the greater portion of the alluvial or "bottom" lands. In this valley the first permanent white settlements were made a little more than thirty years ago, while yet the savage Sioux held the country and the adventurous settlers held their lives in their own hands. This is the corn belt proper of the young state. Along the railroads in this division may be seen long rows of full corn-cribs, in keeping with the views from the car windows—a succession of improved farm areas, neat dwellings, large barns and stables, extensive pig pens and feed yards, and in season grazing herds of cattle, fine horses, sheep and hogs, with waving corn fields, and all of the adjuncts of a land of peace, plenty, and prosperity. The bottom lands along the Missouri have produced corn crops of the highest yield and best quality for the last twelve years with intermission. It is indeed a beautiful and very productive country in its entire extent, and has become noted for its production of corn and hogs, which are fully equal to the grain and pork of Iowa and Illinois Land in this valley is still very cheap, by reason of the great abundance of "free lands" in the northwestern section and to the west of the Missouri, in the newly opened district. At present prices a farm in the older settled portions along the Missouri cannot but prove to be a most valuable piece of property within a few years. The cities of Yankton, Vermillion, Wheeler, Chamberlain, and Pierre are all on the northern or eastern side of the Missouri in this valley. That side of the river is well settled and populated, with all of the advantages of civilization, while on the western side of the river—in the newly opened district—the country is practically virgin and unsettled, although it is filling

up very fast with enterprising men desirous of securing some of the many valuable "snaps" offered to first settlers.

The Missouri river enters the state on the northern boundary, about midway from east to west, and flowing in a general southeastern direction, leaves it at the extreme southeastern corner, forming for about two hundred miles of its length the southern boundary. The river is generally navigable for steamboats for eight months in the year. A number of light draft boats ply regularly during the season of navigation between Sioux City, Iowa, and Bismarck, in North Dakota, touching at all the principal points on the river in this state. Congress annually appropriates large sums of money for improvements to the river channel.

The Big Sioux Valley.—The valley of the Big Sioux river lies in eastern and southeastern Dakota. It includes within its limits the older district around the city of Sioux Falls, where the country is comparatively well advanced in general development, and also the newer section tributary to Watertown. Near the latter city, in Lake Kampeska, the Big Sioux river has its source. This valley is celebrated, not alone for the vast extent of its fine agricultural lands, but for its valuable quarries of granite and jasper rock. The jasper stone, which is an opaque variety of granite, is of various colors, as red, yellow, green, etc., and is susceptible of a very fine polish. It is found along the Big Sioux and occurs in boulders scattered over the district in the form known as "cats-eyes." The soil of the Sioux valley is very fertile and productive, the surface well watered, and drinking water unusually abundant and pure. Lands are very cheap now, for the principal reason of the vast extent of "free lands" elsewhere in the state, but the present prices, in the very nature of things, cannot much longer prevail.

The Big Sioux river carries a considerable volume of water, the drainage of numerous lakes and ponds, and of a large expanse of territory, and furnishes the best water power in the state. From its source near Watertown, in Codington county, it flows in a southerly direction, forming the boundary line between Lincoln and Union counties, in this state and the State of Iowa, and empties into the Missouri at the extreme southeastern point of the state. At the city of Sioux Falls, the river descends through a series of cascades a distance of ninety-one feet in the course of half a mile, and supplies the motive power for flouring mills, granite polishing works, and various other mills, factories and industries. Practically there is no limit to the power which can be supplied by the splendid series of falls of the Big Sioux, in the vicinity of Sioux Falls and Dell Rapids. Along this stream are the largest exposures of quartzite or jasper granite in America. The stone is of a reddish color, susceptible of a glass-like polish, and so hard that its sharp points will cut glass like a diamond. The preparation of this stone for monumental and ornamental

use has become a large industry at Sioux Falls, Dell Rapids, and elsewhere. The Big Sioux river was so named by Lewis and Clark, in contradistinction to the Little Sioux of Iowa, which they first discovered on their memorable voyage.

The James River Valley.—The valley of the James river extends quite through the state of South Dakota from north to south, and runs far into North Dakota as well. It is a most noted region. On the banks of the river from which it takes its name are situated a number of flourishing cities and towns, and the valley itself has the distinction of producing the best wheat grown in the state, and of being the finest artesian well district in the world. That part of the valley in the central and southern part of the state has been the best advertised and is the best known by name. Here, as in the older portions of South Dakota, there are no vacant govermnent lands, but other lands are of surprising cheapness at the present time. The valley is well adapted for stock raising, and there are many fine stock farms in Brown, Spink, Beadle, and other counties.

The James river was known to the early French explorers a hundred and fifty years ago, and indeed was named by them the "Jacques" (the French equivalent for James), and is so laid down on their maps. Subsequently it was called the Dakota, and now it is generally and almost universally known as the James, though locally it is frequently termed "the Jim," the nick-name being a familiarity assumed by those well acquainted with its general character, half as an expression of endearment and affectionate regard, as one often hails a comrade or a friend. The James has its source in the central part of North Dakota, and altogether, from source to mouth, is about five hundred miles in length. The valley is of great width and may be described as one vast fertile prairie, nearly four hundred miles in length. Artesian wells are found in all parts of Dakota, but those in the James river valley are noted for possessing the heaviest pressure and the greatest volume of any in the world.

Central Dakota.—Until recently this term has been understood to describe that portion of territory lying between the James and Missouri rivers, and *east* of the latter stream ; but with the recent opening of the former Indian reservation west of the river it will be proper in the future to include the land on both sides of the river in this division. Central Dakota, as it is now best understood, is a fine, productive region, possessing every capability for grain and stock farming. It is fairly well settled, is well supplied with railroads, and thriving towns and villages have been established all over the district. There is a small amount of government land in the counties of Edmunds, McPherson, Campbell, and Walworth, and in other counties, which may be entered at the land offices at Aberdeen and Huron, but those desiring this kind of land must make their entries soon, as it is being rapidly disposed of to home-seekers.

The Sioux Reservation.—This division of South Dakota embraces all of the territory in the state west of the Missouri and east of the Black Hills, extending from the northern to the southern boundary, forming a magnificent region which is destined soon to become the abode of a numerous and thriving population, a land of abiding material wealth, and the seat of a splendid civilization. A more particular description of this division, with something of its history, is given elsewhere. Here it must suffice to say that it contains a magnificent body of land of 11,000,000 acres, of which by far the greater and the better portion lies in South Dakota. This division has within it almost every variety of soil and a number of water courses. The principal rivers are the Cheyenne, the White, the Grand, and the Moreau, each of which has numerous tributaries. The Cheyenne below its fork is called the Big Cheyenne. With its tributaries it drains the Black Hills region, and contributes the largest volume of water to the Missouri of any river in either Dakota. It is formed by the confluence of the North and South Fork, which inclose the Black Hills. Along the Cheyenne and the other rivers in this division of the state are innumerable beautiful and valuable homestead sites, awaiting occupancy at the hands of enterprising and industrious settlers.

The Black Hills.—The region known as the Black Hills forms the southwestern division of South Dakota. It is noted throughout the civilized world for the great diversity of its resources, and especially its minerals. It lies within the embrace of the North and South Fork of the Cheyenne river, includes an area of 3,500 square miles, and is divided into six counties, Lawrence, Butte, Meade, Pennington, Custer, and Fall River. The mineral deposits are of great variety. Prior to 1874 the country was practically unknown; since then it has become self-sustaining agriculturally, and has developed some of the richest gold and tin mines in the world. Moreover, it is known to contain in its rugged hills and mountains, building stone, granite, grit-stone, marble, cement, fire-clay, coal, copper, iron, lead, mica, nickel, silver, zinc, and other minerals. Visitors to the Hills will also find miners working the placers, washing out gold with profit from many of the streams.

This region produced the first metallic tin in America. There are two well-known districts in the Hills. One occupies a belt about five miles wide and over forty miles in circumference around Harney's Peak. Over 4,000 veins have already been discovered, located, and recorded in this district. The other district is located at "Nigger Hill," some miles southwest of the town of Spearfish. The Black Hills tin is very abundant and very pure.

THE SOIL OF SOUTH DAKOTA.

Investigation proves that the soil of South Dakota is a fine alluvial loam, from one to four feet deep, underlaid with a clay subsoil, having the properties of retaining moisture to a wonderful degree, which is given out as needed by the growing crops. In its chief geological divisions it belongs to the Bluff and Drift formations. It contains an inexhaustible supply of the most valuable soil constituents, as soluble silica, lime, potash, soda, phosphoric acid, nitrogen and vegetable humus, and will produce for a lifetime abundant crops under favorable climatic conditions, and the soil varies but little in different localities. It possesses the peculiar chemical composition requisite for producing cereals richest in albuminoids and in life-sustaining properties.

By chemical analysis it has been determined that Dakota wheat and corn possess a greater percentage of albuminoids and nitrogen than any other grown in the United States. In appearance the soil is dark to a greyish brown color, being dark and black in the lower plains and valleys. It is everywhere exceedingly pliable and easily worked. Occasionally in the bottom lands "gumbo" is found, but, as is well known to those acquainted with this kind of soil, a year or two of cultivation breaks it up and renders it mellow, while its exceeding natural richness and fertility make it almost invaluable as farming land. The prairie soil is easily turned and brought into subjection, and the first breaking often produces a good crop.

The chemist of the National Agricultural Department, in summing up the results of analyses of samples of soils from all parts of the United States, including three from Dakota, states his conclusions in regard to the soil of this state, that it is well adapted to the absorption and retention of moisture; that it is abundantly supplied with silica in a soluble state, and therefore well adapted to the raising of cereal crops, which possess in a marked degree the capacity for feeding on the silicate; that the aluminum or clay in the soil furnishes a good supply of potash, absorbs and retains phosphoric acid, ammonia, and other substances necessary for plant food, and that the light clay soil is best for wheat; that it contains an abundant supply of phosphoric acid, "which," says the chemist. "in general, even in the most fertile soils, is found in very minute quantities;" that the percentage of lime in the clay loams is very large, and in one sample ranks first on the entire list from all the states examined by him; that the percentage of potash is "ample for all time to come;" that the amount of nitrogen in the soil is very large, and rich enough for the continued raising of abundant crops. In regard to the prairie soils he says they contain a percentage of humus, or organic matter, greater than twenty-five out of the thirty samples analyzed. The smallest percentage of humus obtained from an analysis of the three

samples from Dakota was 6.171, and the greatest 10.175, while the famous black soil of the Ural Mountains, in Russia, contains but 5 to 12 per cent. The humus is an indispensable element to the composition of first-class soil. It not only furnishes valuable food for the growing plant, but it greatly increases the water-holding power of soils, and enables them to withstand prolonged drought.

In the newly opened region west of the Missouri the soil is, in many places, of the highest fertility, and every acre is valuable. It is chiefly prairie, and bids fair to rival the famous productive sections of Southwestern Iowa and of Central Illinois. The early homesteaders in this quarter will be able to secure for themselves and their posterity farming lands of rare productive qualities, easily subjected and easier tilled. The black soil, rich and deep, is very general here. The clay soils are similar to those which have been tested elsewhere in the state, and give every promise of becoming of great value. Even the much maligned "bad lands," so-called, in the southwestern portion of the state, though limited in area and extent, produce good grazing grass, and in time will become at least as valuable as the aforetime "Great American Desert," now included in fertile portions of Kansas, Nebraska, and Colorado.

THE CLIMATE OF SOUTH DAKOTA.

South Dakota is in the same latitude with some of the most enterprising, prosperous, and populous states of the Union, but there is a vast deal of imperfect knowledge and real ignorance abroad concerning not only its resources, but its climate. By very many Eastern people the state is believed to be a bleak, barren region, inhospitable and forbidding in appearance, intolerable as an abiding place in reality. "What! Remove to Dakota!" exclaims many a man who is eking out a miserable existence on the worn-out lands of the older settled portions of the Union. "Remove to Dakota, *and freeze!* Go to that arctic region and perish in its storms! No, indeed."

And yet actual and careful comparison shows that no month in the year in South Dakota will average as cold as in New England and the Lake states, some of whose good people shiver at the thought of passing a year in Dakota. There are official records showing what have been and what are the conditions of temperature, rainfall, etc., throughout the United States. From these it is learned that the cloudy days in sunny South Dakota average only 60 in the year, as against 160 in gloomy New England. The records of the United States signal offices in South Dakota, long distances apart, in every latitude in the state, show temperature of the following annual average: At Yankton, in the south, 45° 5′; at Deadwood, in the west, 42° 1′; at Huron, in the centre, from north to south, 41° 8′. These figures are the average for fifteen years as against 39° 4′ for New England during the same period. The average temperature of the

month of January,—the coldest in the year,—for the same period at Yankton was 14° 1′, while at Deadwood it was 21°. The average annual rainfall at these points was: At Yankton, 28.43 inches; at Huron, 23.65 inches; at Deadwood, 28.23 inches. These figures, taken from official records, do not lie.

The superiority and many excellent features of the climate of South Dakota are not understood, even by many residents. They know that the climate here does not seem as rigorous as that of their former homes, but they do not understand the reason. Now, it is a fact that the winters here do not cause the suffering from cold that the temperature would seem to indicate. Dry air is a poor conductor of heat, while air charged with moisture rapidly takes away animal heat, and produces those chilly and benumbed feelings so common to raw days in the Eastern and Southern states. South Dakota is distant from the oceans, and its winter air contains but little dampness, which accounts for the ease with which dwellings can be kept warm, the homesteader keeping comfortable in his board "shack," while the people of the lower latitudes shiver around blazing fires. Stock can run and people work out of doors much of the winter. The crisp, exhilarating air gives human and animal life a vigor, energy and happiness not possible in a more humid atmosphere. To get a correct idea of the beauties of our climate, live in it until all homesickness is eliminated, and then go back and spend the fall, winter or spring in the raw air, mud, fog,—"the freeze, thaw, and sneeze,"—and general misery and discomfiture of the East and South. It is on record for the winter of 1888-1889 that South Dakota farmers worked on their farms, plowing, pulverizing and dragging, during November, January, February and March—more or less in every month of the fall and winter. The winter of 1889-1890 was very similar to the preceding, and it would seem that, if an "arctic" period ever existed here, it has passed.

But it is reasonably certain that South Dakota has always had a climate easily borne. In the days of the buffalos here, in different portions of the territory, were their wintering grounds, always in the valleys, along the streams, where the cured grass of the bottom lands furnished abundant nourishment, and where they remained from December till April, unless driven off by the Indians. This, too, was the favorite country of the Sioux Indians, who never, as it seems, had any difficulty in passing the coldest winters in their thin-walled "tepees" and wigwams. So well satisfied have they been with the country that they have steadily and strenuously resisted all attempts to induce them to remove from it. They have even fought for it, and they have consented that it shall be given up to the white men only in the last extremity, when they have realized its manifest destiny, and that they must submit to overwhelming power and authority.

Length of Seasons.—In this particular there is scarcely any difference between South Dakota and the Atlantic, the Upper Middle and Lake states. The sudden breaking up of the winters is a very noticeable feature. Spring does not linger in the lap of winter. When she comes he goes, and stands not upon the order of his going. There is none of the intermittent warfare between Boreas and Phœbus, the north wind and the sun, resulting in a prolonged visitation of rain and wind, alternately freezing and thawing, to-day a shower, to-morrow a snow-storm. Upon the opening of spring the prairies, and indeed the entire face of nature, are clad in grass and flowers, presenting in the almost incessant sunshine a most delightful scene, which never varies until the autumn comes with its rare influence, gilding, tinting and mellowing. Nature is lovelier nowhere, in any of her moods, than here. Even the winters are highly enjoyable, being marvels of artistic phenomena. The grandeur of the morning and evening skies, the beauty of the auroras, the crystal skies, the brilliancy of the moonlight and starlight, are all entrancing to the beholder, while the air is so stimulating, so bracing, and so pure that one is fitted for the fullest enjoyment of life.

Rainfall.—South Dakota has sufficient rainfall to mature all the crops, if it comes at the right time. This does not always occur, and when it does not, of course crops must suffer. Such a result would follow such a cause anywhere. Naturally and ordinarily the rainfall is abundant. The reports of the signal service show that for the year ending Dec. 31, 1887, the total precipitation was 22.35 inches in all Dakota. There have been a few so called droughty years, but not one of them equaled the drought of Iowa, Missouri and Illinois in 1881, either in length or disastrous consequences to the crops.

The Winter Season.—Of this season in South Dakota there is much misconception. The winters are cold, it is true; but, as has been shown, they are not excessively so. The air, however, is pure and full of invigoration; it is dry and devoid of humidity during the winter months; it does not "stick" or penetrate and chill as does the damp atmosphere of many states. Under such circumstances a very low temperature can be borne. The dryness of the air lessens its capacity for conducting the air from the body; it is the humid, "sticky" air that "chills the marrow in your bones." Men and animals, therefore, suffer much less in South Dakota from cold than where there is even slightly more dampness. People work at outdoor employments here without discomfort when the thermometer ranges from zero to ten or twelve degrees below, which is very rarely done in other latitudes south of this. It is a fact that ten degrees below zero are not felt here as sensibly as ten above are in Chicago, Boston or New York.

There is no rain in winter, no mud, no slush. Think of that, ye dwellers in the "hard-pan" regions of Illinois, Indiana and Ohio,

and of the "gumbo" districts of Missouri, Kentucky and Tennessee. Under foot in Dakota the snow lies crisp and hard. And yet less snow falls here during winter than in the states east and south. Take the severest winter that has been experienced in Dakota since the record has been kept—the winter of 1886–1887. In Dakota,—then including North Dakota,—the total number of inches of snow during the winter was 47.8; while in New York the same season, the total snow fall was 55.7; in Michigan, 61; in Massachusetts, 64; in Maine and New Hampshire, 86; in Vermont, 87.2.

Some winters there is scarcely enough snow to make good sleighing; as, for example, that of 1888–1889, when farmers were able to do more or less work in their fields every month. The railroads are very much less obstructed from snow than in any other locality of the same latitude. The winter of 1886–1887 was, however, quite severe and much snow fell. One storm in January, 1887, was as severe as the storm in New York City of March, 1888, when the streets were blockaded and many persons lost their lives. Disastrous weather is not monopolized by any particular state or locality.

It is only when the wind blows strong from the northwest, full of fine particles of snow, that the Dakotian thinks of housing himself because of the cold. These storms,—popularly known as "blizzards,"—are quite uncomfortable, but fortunately they are rare—quite as rare as cyclones in the older settled states of the Union, much rarer than devastating floods in the south,—and are always followed by brighter days, with more of summer weather than before. As before stated, in the matter of sunshine South Dakota is blessed with more of that sort of weather when human beings and the dumb animals are comfortable out of doors than any of the Atlantic or Lake states. All in all, the climate of South Dakota is fairly temperate, and on the whole surpassingly healthy and enjoyable.

People are sometimes frost-bitten, and, under extraordinary circumstances, are frozen to death, here as they are anywhere, even in South Carolina. But the climate is one of the greatest inducements offered to home-seekers. Good health is everything. South Dakota has neither the climate nor the malaria of Florida. It has neither the magnolias nor the miasm of Dixie's Land. Its clear and pure atmosphere is fatal to the existence of the bacilla of disease and the germs of epidemics. Toxic fevers are almost unheard of. Pneumonia is very rare, and during the winter of 1889–1890, when the Russian influenza or "la Grippe" swept over the entire country, prostrating millions, and carrying off thousands, it scarcely gained a foot-hold in South Dakota. By reason of the cool, pure climate, the entire state is one vast health resort, a haven of refuge for the consumptive, the asthmatic, the ague-smitten, and the debilitated of every sort.

Spring.—Farming operations usually begin in South Dakota in the latter part of the month of March or early in the month of April, and they

are seldom interrupted or interfered with by the return of frost or snow. Occasionally, in the Southern part of the state, seeding is begun as early as in February, and fall plowing is continued until late in November. There is but little doubt that the cultivation of the soil, the planting of trees, and the other improvements and developments of civilization have already had a marked effect upon the climate here, as the same influences have had upon the climate elsewhere. Old settlers insist that even within their experience here, of twenty or twenty-five years, there has been a change for the better in the seasons, and that seeding is now begun a month earlier than formerly. The spring seasons here open early, and without the lingering and changeableness so common in other states. Commonly there is very little, if any, snow on the ground by the first of April, and the frost is all out of the ground three weeks later. On the last of March, after the severe winter of 1886–1887, there was but one inch of snow on the ground in Dakota, while there were three inches in Iowa, four in Michigan, six in Pennsylvania, and twelve in Northern New York. Vegetation is usually very forward by the first of May, and cattle find excellent grazing on the ranges from and after that date. The spring season is always cool and balmy, very suitable for outdoor work.

Summer.—The summer season is one of warm days and cool nights. This is the season that perfects the grain crops and gives Dakota her reputation for growing the best wheat, the heaviest oats, the brightest barley, the oiliest and richest flax, and the choicest vegetables produced in the Union. This, too, is a most delightful season in other respects. When the question of a desirable home is considered, the advantages of comfortable nights, after the day's toil is finished, ought always to be taken into account. In many localities in the Union it is impossible to sleep well during the period between the summer solstice and the autumnal equinox. The open air is often resorted to, and even then the sultry condition of the atmosphere prevents sound rest. Dakota is celebrated for her beautiful evenings and her cool and pleasant nights. The day may have been too warm for comfort, the winds steady and high, but at night all is quiet and cool, and the tired laborer or the weary invalid never fails of finding refreshing rest. In reality, the pure, exhilarating, healthful climate of Dakota is one of the strongest influences which holds within her borders those who have experienced its delights. The days of summer are not oppressively hot. Sun-stroke is quite unknown. The season, too, is not unhealthy. The many lakes and streams do not breed disease at this time, as is often the case elsewhere, but they become sanitary resorts, pools of Siloam for the people of malaria-infected and heat-oppressed states.

Autumn.—The fall season in South Dakota is very delightful. "Then, if ever, come perfect days." A late writer says of this season:

"How mellow the days! How golden and glorious the sunlight! Now is the expressive silence of satiety—the fullness of enjoyment. The grain crops are being threshed, the potatoes are being dug, the stores are being garnered. October is a charming month in all of the Northwest, but nowhere is it fairer than in South Dakota. None of the storms, none of the fevers, and scarcely any of the malaria and agues which are peculiar to the October days of many other sections of the land. Here is a serenity that seems almost supernatural and a perpetual sunlight, tempered and misty, as if falling through a golden haze. And then there are the white moonlight nights, when the stars twinkle with a far-off glory, when the moon is silvery as the sun is golden, and a flush of the aurora, or 'northern lights' glints the horizon."

There is but little of rainy, squally weather at this season. The first frosts generally come in the latter part of September, but are often delayed until well into October. Crops are no more endangered here by either early or late frosts than in other states of the same latitude. The peculiar dryness of the air enables vegetation to resist light frosts, which in other sections, where the air is more humid, would prove disastrous. The temperature can fall below the freezing point without producing frost.

HEALTHFULNESS OF THE CLIMATE.

The healthfulness of the climate of South Dakota has been so fully demonstrated by experience that it cannot now be questioned. Although, as has been stated, the thermometer in winter sometimes registers considerable cold, yet the climate is dry, pure, healthful, and invigorating. It possesses all the good qualities of that of Colorado, without the light, highly rarified air of a mountainous altitude, which is so dangerous to those suffering from lung troubles. Frequent reference has been made to this invaluable natural quality of our state, but the subject is one of such importance, so near to the heart of every Dakotian, that it cannot be easily worn threadbare or become tiresome.

The climate, the year round, is especially beneficial to those suffering from pulmonary, bronchial, and malarial diseases, and is an upbuilder of physical and mental strength. Very many of the citizens of the state were induced to come here for relief from bronchial and pulmonary ailments, and all found benefit, while most of them have fully recovered. Fever and ague, so common to most new countries, and so prevalent in many sections as to be one of the institutions of the country, is wholly unknown here as a product of the country; the only cases having been imported or contracted elsewhere. The quinine bottle, an article indispensable to many a household in the land, is never seen on the mantel of the Dakota settler. Fevers of any kind that are bred by miasmatic vapors rarely occur

here, and are much less malignant than in moister and warmer localities.

Mortality.—The statistics of mortality in Dakota are interesting and instructive. In 1885, under the old territorial organization, the whole number of deaths in the entire territory was 2,511, or 6.01 to every 1,000 inhabitants, or one in every 166 of population, which includes a considerable number of invalids who came into the country suffering with chronic diseases and in such low health as to be really incurable. The following table of the death rate in different states of the Union and in certain foreign countries is compiled from the U. S. census report of 1880, and is certainly a strong argument in favor of the Dakotas as a health resort:

Other States.	Death Rate.	Foreign Countries.	Death Rate.
Minnesota	1 in 86	Norway	1 in 56
Iowa	1 in 84	Denmark	1 in 46
Wisconsin	1 in 82	Sweden	1 in 50
Pennsylvania	1 in 67	Great Britain	1 in 46
Texas	1 in 66	Switzerland	1 in 41
All of the United States	1 in 66	Holland	1 in 37

While in Dakota, by the census of 1885, the rate was ..... **1 in 166**

The death rate of Sioux Falls, which may be regarded as a fair sample of other South Dakota cities, was but 4⅝ to each 1,000 inhabitants; while the average death rate of the leading cities of the country, New York, Boston, and others, by the census of 1880, was 20 to each 1,000.

Expert Testimony.—The sanitary condition of Dakota has been well and truthfully described and set forth by the eminent Dr. T. C. Duncan, of Chicago, who made a very thorough study of the climate and soil of Dakota, and published the results of his investigations to the world. Says he:

"Dakota is a vast plateau, reached from Chicago after passing up through hill and dale, over rivers and picturesque lakes. As far as the eye can reach, for miles and miles, green waving grass or grain is seen below, and a clear blue sky above. The effect upon the mind is most soothing. Dakota is so situated that there are constant breezes coming up the rivers and over the broad expanse of prairie. These increase with the evaporating heavy dews, and wax and wane with the sun, as in California. The lakes and moisture are on high ground, so that the air is not so dry as in Colorado; therefore, there is a large amount of ozone always present. The river and surface water is mildly alkaline. The chief ingredient is magnesia. The soil is loaded with saline ingredients, which increase the nitrogenous elements of the food, rendering Dakota products very healthful and appetizing. The people of Dakota are vigorous, intelligent, enterprising and remarkably hospitable. These are features that, in the opinion of many medical men, will yet make Dakota a famous health resort. The class of cases that will be especially benefited will readily occur to you. For consumptives, and those suffering with diseases of the lungs in general, it will yet rival Colorado or California, especially for the first stage of lung troubles. The tax upon circulation will not be so great as in higher latitudes. Advanced

cases had better go south, especially in winter. The absence of low marshes and malaria make it desirable for those troubled with bilious disorders. For diseases of the kidneys and bladder, the water of Dakota is especially valuable, rivaling that of any noted waters. For dyspeptics, especially, the climate, water and cereal products of Dakota will yet have a great reputation. For agreeable mental diversion there is no better, safer resort. City business men should take a few weeks vacation in Dakota, especially in the spring and fall. The mental diversion, and physical energy recovered, would amply repay them. Young ladies in the East, suffering from neurasthenia and ennui, would get healthy by a short residence in Dakota—as well as a husband, perhaps, and a slice of government land. The whole country is filling up rapidly with very intelligent people. In the many towns springing up are excellent openings for young men with a little money. Money is in great demand. The enterprising railroads, that are assisting amazingly to develop this country, will furnish maps and particulars as to special points. Physicians who have visited Dakota agree that the trip is a delightful one. Dakota is destined, physically, as it is commercially, to wield an immense influence in this nation. It can invite the dyspeptic, hollow-chested young men from the East, and expand and develop them into vigorous manhood. The sanitary features of this country should be as widely known as are its agricultural advantages."

STORMS AND BLIZZARDS.

Who has not read of a "Dakota blizzard?" To the minds of many this phenomenon is as dreadful as the sirocco, as deadly as a simoon. And many yet believe that blizzards are as frequent in Dakota as spicy breezes are in "Ceylon's Isle." The truth is that Northwestern "blizzards," which are so commonly and so greatly exaggerated, are simply high winds and gales accompanied by driving snow, are very uncomfortable to encounter, and if a man is caught in one and unable to reach shelter he will probably perish as readily as if he were belated and bound in a New England snow storm or a Southern river overflow. The "terrible" nature of blizzards has been greatly exaggerated by romancers and sensational writers. On a few occasions persons have lost their lives here in Dakota by being caught in them, and—owing to the sparsely settled condition of the country—being unable to reach shelter and warmth. The same disaster would overtake an Ohio man or a Pennsylvanian, or even a Kentuckian, if his state were thinly settled and he overtaken in one of its winter storms. The same did happen in January, 1886, in Kansas,—hundreds of miles south of Dakota,—when in a single storm 26 persons perished.

Blizzards are no worse or more frequent in South Dakota than in any other prairie country north of the 38th parallel. There have been no severer storms here than those in New Mexico and California in the winter of 1890, when railroads were blockaded for weeks and dozens of cattle-herders and others were frozen to death. The storms of winter here are not of long duration, and are invariably succeeded

by bright, brilliant and temperate days. As the country gets older and better settled these disturbances will hardly be noticed.

But of cyclones, tornadoes, and like disastrous storms, the people of South Dakota have no fears. The investigations of the United States signal service and of the best climatologists declare that this state is out of the track of those extensive and disastrous cyclones which very frequently sweep over regions further south and east, and are as destructive in Georgia as in New York, and as deadly in Pennsylvania as in Missouri.

THE PRODUCTIONS OF SOUTH DAKOTA.

The natural productions of South Dakota embrace everything of real and substantial value belonging to the vegetable and mineral kingdoms of the Western Continent and the North Temperate zone, from golden grain to golden nuggets, and from the grasses of the prairies to the granite of the cliffs. It is impossible within the limits of these pages to properly describe these resources of our state, and only a meagre mention can be made of them.

Agriculture.—Two-thirds of the people of South Dakota are engaged in some of the departments or branches of agriculture. In the products of the field, the garden, and the pasture our state is destined to take pre-eminent rank. Already her productions have had a marked influence upon the commerce of the country and the markets of the world. Dakota's wheat is known everywhere, and the output here influences prices in Chicago, New York, and Liverpool. Dakota flour is celebrated on both sides of the Atlantic, and is used in the households of Boston and New Orleans as well as in those of London, Berlin, and Stuttgart. In 1880 there were 17,000 farmers in both Dakotas; in 1890 there are 100,000. Farm productions have increased from ten to twenty per cent each year, despite local failure of crops and other adverse influences, such as low prices, distance to market, etc.

Grain raising will, of course, never be abandoned in South Dakota, because the conditions here favor the production of

The finest wheat in the world;
The heaviest oats in the world;
The brightest barley in the world;
The richest and oiliest flax in the world;

and in the near future the agriculturist here will produce everything on his farm for his own use except his groceries and clothing, and will no longer buy canned goods from Maine and cured meats from Chicago, but will patronize home institutions, which will be abundantly able to supply all of his wants.

The sober, industrious, and prudent Dakota farmer will in time become independent, live easily, and leave to his family a good heritage. His experience may be that common to pioneers, and at first have in it something of hardship and privation; but he will live to

relate his early trials to his descendants, and to congratulate himself that these troubles did not last long, and were soon over forever. In many of the older settled states, where valuable farms and affluent farmers are on every side, one often listens to the old gray-haired pioneers as, surrounded by every comfort, they narrate the privations they endured in the early settlement of the country. Many a tale of this sort under the same circumstances will be narrated at the cheerful fireside of the Dakota pioneer in the year 1925, as, in the midst of delightful surroundings, peace, plenty, and prosperity, he sits in the evening of his days contemplating the past with satisfaction and looking to the future without fear.

AGRICULTURAL PRODUCTIONS.

Wheat.—This cereal is South Dakota's principal agricultural product, and doubtless will always be her chief staple, owing to the extremely favorable conditions which here prevail for raising the best quality of wheat at the lowest possible cost per bushel. The superb quality of Dakota wheat is well established and very generally known. At the World's Exposition in New Orleans, in 1884–1885, Dakota was awarded first premium for wheat over competitors from all the famous wheat-growing countries of the world. Dakota hard wheat—a grade by itself—commands usually from ten to twenty cents per bushel more than any other wheat grown, and yet it is raised at a less cost here than in any other section of the country. The cost of producing a bushel of wheat in Dakota ranges from twenty-four cents on farms carefully cultivated to forty cents on farms indifferently tilled.

The report of the Bureau of Chemistry of the United States Department of Agriculture for 1884 contains the result of an analysis of 2,759 specimens of wheat, among which were included samples from every state of the Union and many foreign countries. The result of this very valuable investigation establishes the important fact that in dryness, and richness in albuminoids, Dakota wheat ranks the best of any grown on American soil, and probably averages the best in the world. The average percentage of albuminoids in the wheats of all the United States and British America is 12.15; in Dakota it is 14.95, leading every state and territory. The average percentage of dryness of the wheats of the United States and Canada is 10.16; the average of percentage of water in Dakota wheat is but 8.84, leading every competitor in this respect in the United States, except West Virginia, whose average is 8.55.

These experiments demonstrate two important truths: First, that a barrel of Dakota wheat flour will make more bread than the same quantity of wheat raised in any other state or territory in the Union; second, that bread made from Dakota flour contains more gluten and

other of the materials which nourish and build up the human body than bread made from flour of any other kind. Other experiments prove that Dakota flour made from No. 1 hard wheat, cured naturally, contains three per cent less moisture than California flour made from wheat *dried in kilns*, and will make practically more bread. As compared with the common grades of Eastern flour, the difference in bread-producing qualities amounts to no less than *fifteen pounds of bread in every hundred pounds of flour* in favor of the Dakota product.

The wheat is spring wheat, of the hard variety, the latter characteristic due mainly to the long and warm sunny days, which cause the grain to open better. In an average season the yield per acre is from fifteen to twenty-five bushels. Last year (1889), taking the state over, and taking into account the many thousand acres that did not produce a bushel, the average yield was eight and six-tenths bushels per acre.

Corn.—Upon the first settlement of South Dakota it was thought that corn would not grow here, by reason of the high latitude of the country and the comparatively short growing season; but time and experience have demonstrated the falsity of this theory, and now the state takes a high rank as a producer of this cereal. The total yield last year (1889) was nearly 22,000,000 bushels. Already, therefore, the state produces more corn than either of the states of New York, Minnesota, New Jersey, Louisiana, California, and about twenty other corn-growing states. And yet the cultivation of corn has not been attempted here on a considerable scale, owing to the far greater success that has been attained with the small grains. The crop of last year—the "famine" year—is no comparison to the aggregate amount that can be produced in a favorable season throughout the state. The crop ordinarily matures without damage from frost or ravages from chinch bugs or other insects, and very many farmers declare that the yield, quality, and profit, are better than in the states from which they have emigrated. Of the quality, analysis shows that it is extremely rich in the nourishing qualities, being very rich in albuminoids and nitrogen, and in this respect above the average of the component elements of American corn. The corn crop of America of 1883 contained on an average 10.31 of albuminoids, while that of Dakota contained 10.75; the nitrogen in the American crop at large averaged 1.65; that of Dakota corn was 1.72.

Flax.—The production of flax in South Dakota is practically in its infancy as contrasted with the attention that will be paid to this crop in the future, when by the increase of capital, manufactories shall be established for the utilization of its seed and fiber. At present, owing to a lack of these industries, flax is raised chiefly for its seed, and the fiber or straw is wasted. This fiber, too, good judges say, is equal to that grown in Ireland, from which the finest and best linens are made. The introduction of flax mills will add largely

to the wealth of South Dakota, and furnish a great impetus to flax growing in the state.

Flax and sod-corn are now usually the first crops raised on new land here, for they can be sown on freshly turned sod with a reasonable assurance of a good yield under any circumstances. Flax is one of the best subduers of virgin soil that can be grown on the sod, rendering the ground in first-rate condition for working the next season for any kind of crop. In this way it yields, ordinarily, from 7 to 15 bushels per acre, and in many instances a single crop has paid for the land, including breaking and planting. As a profitable "sod" crop, it is a real godsend to the new settler. If he can turn over 40 acres of sod before the twentieth of June, he can confidently rely on 10 bushels to the acre, of the aggregate value of $400, and can make the seed in 100 days from the time he unlimbers his plow on the prairie for action. The state raised about 3,000,000 bushels of flax seed in 1889, while the entire production in the United States was only about 10,000,000 bushels.

Oats.—After wheat, in the total yield and value of crops in this state, is the oat crop. The use of this grain as human food is extending throughout the country, and the Dakota variety is known to be of unusual excellence for the making of meal. It is considered a very safe and reliable crop, is subject to fewer diseases and insect pests, and is less exhausting to the soil than any other of the cereals. The yield is very large, the average being from 40 to 80 bushels per acre, weighing generally 42 pounds to the bushel; but in exceptional instances more than 100 bushels per acre have been produced. In 1860 the crop in all Dakota was but 2,540 bushels; in 1870 it was 114,327; in 1880 it was 2,217,132, and in 1888 it was 30,408,585. In 1889 the crop in South Dakota alone was 11,623,615 bushels.

Barley.—This grain does well here. The product is of unusual brightness, and highly prized by dealers and consumers. The latter, of course, are chiefly brewers, while the majority of our farmers are prohibitionists, who are no more inconsistent in the raising of barley, because perchance it may be brewed into beer, than in the raising of corn because whiskey may be distilled therefrom. The crop produced averaged from 35 to 48 bushels per acre, weighing from 45 to 54 pounds per bushel. As shown by the table of crop statistics in South Dakota in the "droughty year" of 1889, the production of barley was about 1,700,000 bushels.

Hay.—The prairie hay crop of South Dakota is a natural provision of wealth, nearly equal in value to that of the cultivated crop and far more abundant. A large yield of excellent quality may always be depended upon. Although in some seasons the growth of the prairie grasses may be heavier and ranker, there has never been in the history of the state a complete disappointment to the farmers and stock-raisers by reason of their failure. The year 1888, one of the dryest

and severest on the hay crop known, the yield was estimated at 1,000,000 tons.

Grasses.—The native grasses are still so abundant and nutritious here that no very extended attempts have been made with the cultivated varieties; but wherever timothy, blue grass, clover, millet, Hungarian, and even alfalfa have been tried, they have succeeded well. The wild grasses, of which there are several varieties, cure uncut during the summer and fall, stand as hay on the ground the winter through, maintaining almost their original succulence and nutriment, and are actually preferred by stock during the cold seasons to tame hay in the stack. It was the abundance of this grass in the olden time that supplied the vast herds of buffalo with winter provender. But the wild grasses, like the wild buffalo, cannot abide the intrusion of civilization. The famous buffalo grass disappears with the cultivation of the country, for it seeds in the root and cannot be transplanted. There were about 175,000 acres in tame grasses in South Dakota in 1889.

Potatoes.—The potatoes grown in South Dakota cannot be excelled in size and quality in the United States. They grow sometimes to the weight of six pounds each, are uniformly round, very "mealy" and toothsome, and are conceded to be equal to those grown in Colorado or in any other western state. Dakota potatoes have taken the premium at New York exhibitions, and often in the local market can be seen entire wagon loads, every tuber of which resembles a prize-winner. They yield from 150 to 400 bushels per acre, and are such good "keepers"—lasting until late in the summer following their growth—that they are becoming more valuable every year for export purposes. The leading hotels of St. Paul and Minneapolis are supplied as late as in the month of June with "old" potatoes from Dakota. The crop in this state in 1889, "the dry year," was computed at over 2,500,000 bushels.

Minor Crops.—Sorghum is grown successfully in the corn belt. Tobacco is also raised, notwithstanding the fact that the season is shorter here than in Kentucky and Tennessee, but as yet this staple is only produced for home consumption. Beans can be made an important crop item. Many varieties will grow, and the small white or navy bean, reaches a high standard of excellence. In the exhibits of the Northern Pacific Railroad at the Buffalo and Detroit International Fairs, in 1889, the beans and seeds of Dakota attracted much attention, and received warm commendation from gardeners and seedsmen. Hops of excellent quality grow wild along the Missouri, the James, and other rivers, and on the low lands of the Black Hills, and yield a large crop regularly. The fact that they grow wild along the streams of South Dakota is an assurance that they can be easily and successfully cultivated here. The only other localities in the United States where hops are cultivated for profit

are certain small sections in New York, Michigan, Wisconsin, Oregon and Washington. The home supply of this product is not nearly equal to the demand, and thousands of tons are imported annually from Europe by the consumers of this country.

Vegetables.—The entire list of root crops, as also the bulbous and salad crops, peculiar to the North Temperate zone grow abundantly in South Dakota, producing large yields, attaining extraordinary size, and possessing fine flavor. Turnips, peas, beets, carrots, parsnips, rutabagas, radishes, and squashes, cabbages, cauliflower, melons, and all the other field and garden vegetables are very easily raised. Turnips ought to be sown in June; rutabagas in July. The mangel-wurzel yields tons to the acre. Onions grow to a large size and yield from one hundred to two hundred and fifty bushels per acre. Cabbage, lettuce, celery, spinach, and other plants whose leaves only are eaten, are tenderer here than in warmer climates, where their growth is forced by the hot sun. It has been claimed by many writers that vegetables do best near the northern limit of their production, and the excellence of Dakota's products seem to confirm the theory.

Fruits.—With care in the selection for planting, of varieties that are adapted to the climate, and in placing them in positions favorable for their growth, experience has shown that fruits,—including apples, pears, cherries, plums, and small fruits,—can be easily grown here. Difficulties of a like character to those encountered and overcome in New England, Canada, Northern New York, Michigan, Iowa, and elsewhere are being met and removed in Dakota to such an extent that there is no doubt as to the future success of a general variety of fruits.

The early settlers of all the prairie states doubted the fertility of the soil because of the scarcity of timber, and did not believe that fruit could be raised because the winters were cold; but both of these errors went down before the march of experience. In the early settlement of Iowa a number of pioneers actually abandoned the country because of the forbidding aspect of things generally, and especially because of the failures of their first experiments at fruit-raising. Their pluckier neighbors derided their temerity, and delighted in mimicking the tones and speech of certain Hoosiers, who, when asked why they were leaving the country, were accustomed to reply: "We are goin' back to Injeanny, where we can raise fr-oo-oo-t!" In 1876, at the Centennial Exposition, Iowa had three hundred and forty-two varieties of apples on exhibition, and a few years previously bore away the highest prize in the National Pomological contest at Richmond, Va., for the best quality of fruit.

In many localities the farmers have organized societies to further the interests of horticulture and forestry, and the Farmers' Alliance, which is very strong in this state, has given the fruit question much attention, going so far as to recommend the varieties best suited to

Dakota. In the other sections of the state large quantities of small fruits are shipped to other parts of Dakota, and to Nebraska and Minnesota. Apples, grapes, strawberries, raspberries, gooseberries, and currants are the principal varieties exported. The Dakota Horticultural and Forestry Association, organized some years since for the promotion of the fruit and tree interests of all Dakota, has done much good service in its specialty.

In 1888, there were 2,467 acres in nurseries in South Dakota; 444 acres in vineyards; 46,640 fruit-bearing trees, and 338,476 not bearing, in orchards, and the value of the fruits marketed was estimated at $8,785. There are no returns as yet for last year.

Flowers.—No lover of flowers need fear that by locating in South Dakota he or she will be deprived of the pleasure of their possession. Window and outdoor gardening can be carried on here with satisfactory results. The outdoor flowers are of the usual varieties common to the Northern States, including roses, pinks, dahlias, asters, pansies, peonies, etc. Wild flowers of innumerable varieties, with sometimes several forms of each variety, beautify the prairies and the virgin landscape everywhere. The delicate and pretty oxalis, the larkspur, the sweet-williams, as well as the native sunflower and daisy, and dozen of other varieties are to be found at the proper seasons almost everywhere, whether upon the bluffs, out on the prairies, in the bottom lands and valleys, or down in the sloughs and ravines.

LIVE STOCK.

Stock-raising is very profitable in every part of South Dakota. Hogs and cattle are raised in large numbers in the southeastern counties, and horses are bred everywhere. The large cattle ranges must disappear in time, as the "cow men" give place to the settler, but stock-raising on farms will become more general in consequence, and prove highly profitable. The corn crop will chiefly be fed to stock, or "sent to market in a steer's hide" as it is sometimes expressed, giving to the farmer all possible profit on his grain. There are numerous stock farms already in the state, where the best of thoroughbred stock is successfully and cheaply produced.

The splendid growth of native grasses, the invigorating air, the pure water, the comparative immunity from contagious diseases, the ease with which tame forage, grain, and root crops can be produced, all combine to make South Dakota one of the best beef-growing countries in the world. The horses raised here have more muscle, endurance, and lung power than those raised in the East. There are some as fine horses and cattle in South Dakota as in America. The state is admirably adapted to sheep and hogs, the country being exempt from foot-rot, scab, cholera, and other scourges which make such formidable enemies to both in other states. Wool-growing is begin-

ning to make headway. Sheep-raising is an industry one can engage in with small capital. The increase is so rapid that a good-sized flock can soon be accumulated.

The ease and certainty with which corn can be raised in South Dakota has given great impetus to the swine industry. The farmer who converts his grain into pork can snap his fingers at the elevator and commission men and laugh at railroads. As a rule, he can sell when he pleases, and if need be he can do his own packing. Every farmer should keep as many domestic animals as possible, and South Dakotians are beginning to do so. He should have at least one or two cows, a few sheep, and should keep pigs and poultry. The road to success in farming is to produce on the farm as much food for the family and feed for the stock as possible, so as to make small bills at the stores; besides, butter and eggs bring good prices, and cattle and hogs are always marketable at good prices, and cost very little to raise, owing to the free pasturage.

According to sworn assessment returns of last year the value of the domestic animals fattened and killed in South Dakota in 1888 was $2,547,064.

Markets.—The state is near enough to good markets for her stock to make stock breeding and feeding profitable. Direct and ample railroad connection is had with St. Paul, Minneapolis, Duluth, and Chicago, as well as Sioux City and Omaha, at all of which points are good stock markets, and we have some good home markets. No other new region of country was ever so well supplied with railroads, or had easier access to markets. In the first settlement of the greater part of the country stock was driven on foot, sometimes hundreds of miles, to market, and then sold at insignificant rates.

Grasses and Pasturage.—There is for the present, and perhaps for years to come, unlimited range covered with a rich and succulent herbage. The prairie everywhere is faced with a plentiful growth of buffalo, gramma, and blue-stem grasses, equal for grazing and hay to the tame varieties of the East. One has only to find a vacant piece of prairie and his hay crop will cost him nothing except the expense of cutting and stacking. These native grasses cure to hay upon the ground, and stock will fatten in the fields almost as rapidly as they do in the East stall-feeding on grain. The grass retains its nutrition throughout the year, even when uncut. It can be mowed at any time, making quite as good hay in the fall as in the summer months. Millions of acres of this native forage grow, cure, and go to waste annually, uncut and unfed. If the grass growing on the prairies of Dakota could all be utilized and turned into meat, it would supply the markets of America. It is the statement of a noted economist, that "That country must be considered the most prosperous in which the inhabitants are enabled to have the largest ration of meat for their food." Statistics show that the

United States consumes one hundred and twenty pounds of meat per capita, or double the quantity of European countries.

Climate.—The climate of South Dakota is, all things considered, very favorable for stock-raising. A recent writer, well acquainted with the country, says that when animals are provided with the least attempts at shelter and forage there is never any loss, and they always come out strong and in good flesh in the spring. Were it not for the custom prevailing in some sections of turning stock loose on the range the entire year, without provision for shelter or food, the percentage of loss would be as small in Dakota as anywhere else in America. The need of providing shelter of some sort, and of supplying forage, so easily had for the cutting, is being impressed more strongly each year on the stock growers of the Northwest. If our stock growers would devote but a trifle of the labor and expense to the care of the stock that is expended by the farmers of Iowa, Illinois, Indiana, Ohio, or any other state, the raising of horses, cattle, sheep, and hogs in Dakota would become a most safe and largely profitable investment.

Horses.—South Dakota has already a first-class reputation for the horses born and bred within her borders. The horses raised on our prairies have really more muscle and lung power than the stall-fed steeds of the East. It is a fact that numerous high bred horses from other states are brought here to be trained and get the full benefit of the climate for their lungs and constitutions. Farmers are realizing that it costs but little more to raise and care for a high bred and really valuable horse than for a scrub, and everywhere the best grades of breeders of both sexes are being introduced. Altogether there were in the state at the time of taking the assessment of 1889, 191,345 horses and 7,232 mules.

Cattle.—In all of the older settlements here the best grades and breeds of cattle are to be found. There are Ayrshires, Alderneys, Devons, Holsteins, Herefords, Jerseys, Shorthorns, and Polled-Angus in every well settled county east of the Missouri. The increase in the number of dairies and creameries has created a demand for milch cows, while breeders, work oxen, and beef cattle are always in good demand. There were assessed in 1889 in South Dakota, 170,569 milch cows and 368,892 other cattle.

Sheep.—In South Dakota sheep do not suffer from the diseases so common in other states, under more humid climates. Not only do Dakota sheep produce heavy fleeces, but they lead in prices in Western wools. The mutton of healthy sheep is vastly to be preferred to that from animals affected with scab, foot-rot and catarrh, which diseases are almost unknown to this climate. The percentage of animal loss in Dakota is smaller than in almost any other section of the country. There were 157,815 head of sheep in the state at assessment time last year and only 3,477 had died of disease the previous year,

according to the sworn report of the owners. The interest in sheep raising is increasing every year, owing to the abundance of cheap pasturage and for other reasons. There are numerous large flocks in the Black Hills district, and in the near future thousands upon thousands of sheep will be grazed on the newly opened Sioux Reservation lands. The wool clip last year amounted to 582,888 pounds.

Hogs.—The fact that hog cholera is extremely rare in South Dakota ought to make the state well up to the front as the first hog-producing state in the Union. Hogs do well here during the summer and fall on the native grasses and roots, and throughout the state they are remarkably free from all sorts of complaints afflicting swine. Out of 386,317 head of hogs assessed in 1889 only 18,000, of all ages, died of disease the previous year. With the increase of the corn area in the state the hog crop is increasing very rapidly.

Poultry.—The lakes of South Dakota are the breeding places of millions of wild ducks and geese and other water fowl. All kinds of poultry do well here. Turkeys and chickens are easily raised. Ducks and geese are quite profitable, especially in the districts where the water supply is abundant. The extension of poultry raising here ought to be encouraged. The practical breeds, the egg-producing, flesh-furnishing kinds, are preferred just now to the fancy kinds, although a few of the latter may do no harm among us.

THE BLACK HILLS.

The greater portion of this famed region, and by far the more valuable, lies within South Dakota. A more particular description of this Eldorado of the Northwest, whose wealth of resources is only imperfectly developed and cannot as yet be estimated, save that it is deemed to be practically illimitable, is herewith appended.

Of its geology, Prof. G. E. Bailey of Rapid City, says:

"The geology of the Hills is not complex, but may be outlined by a simple diagram. Draw an ellipse, with the longer diameter pointing northwest; place Harney Peak at the southwest focus and around this ellipse draw four more. Draw a north and south line through the northwestern one-third of the ellipse, for the western boundary of Dakota; each ring will represent the upturned edge of a geological formation containing minerals and resources distinct and different from those next adjoining.

Around the nucleus of granite known as Harney Peak are arranged in oval, concentric bands the upturned edges of nearly every geological period. Starting downward from the peak toward any point of the compass, one would pass over the upturned edges of the archæan slates and schists of the inner ellipse. These slates and schists have been heavily eroded, laying bare to the miner the veins of gold, silver, copper, tin, mica, etc. Next would be passed over the sandstones and cement beds of the Potsdam, which contain valuable

mines of gold, silver and copper. The erosion of these slates, sandstones and cements, and the redisposition of gold and tin which they contained, has formed in the valleys and canyons of the various creeks the rich placer deposits now extensively worked. After passing these, one comes next to the carboniferous limestones, rich in building-stone of every shade, color and texture, lime, hydraulic cement, and marbles rivaling those of Vermont and Tennessee. Then the Jura-Triassic formation, or "red beds," already famous for its vast deposits of snowy gypsum and variegated sandstones, now extensively used to ornament buildings. Next in order are the sandstones of the cretaceous, which stand up like a wall and form the outer edge of a valley by their precipitous inner faces, which entirely encircle the Hills and form what is known to the Indians as 'The Race Course.' These sandstones are excellent for building purposes, and contain the strata of whetstone and grindstone grits which are fast taking a high rank in the eastern market. Outside and around the sandstones, sloping gently out to the plains, are the coal, oil, and salt fields now being extensively developed along the southwestern flanks of the Hills."

Mineral Deposits.— The deposits of ores in the Black Hills are of great variety. It must be borne in mind that prior to 1874 the country here was almost unknown. Since then, however, it has been demonstrated that it contains valuable minerals of great variety and in inexhaustible quantities.

Gold, Silver and Lead.—No less than five different geological formations show gold in various combinations. The most important mining section so far developed is the Whitewood district, of which Deadwood and Lead City are the centres. Around Terraville, Central and Lead City are gold ore bodies from two hundred to over four hundred feet in width and hundreds of feet in depth, that have been tested a distance of several miles. It is a low grade ore, yielding about four dollars to the ton. To supply these mills with fuel and water, the Homestake Company has in operation a railroad twenty-seven miles long, and has water ditches and flumes measuring over thirty miles. No adequate idea can be formed of the magnitude of the work in this district from the mere statement that over 600 stamps are at work, and never stop except for repairs; or that over 1,600 tons, or 20,000 cubic feet, of rock per day are crushed by the Homestake Company alone; or that in the last year they have taken out over $2,225,000 of gold from ground measuring 6,000 feet in length by 1,500 in breadth, on which they have been mining for the last eleven years, and on which they expect to mine for many years to come.

In the Northern Hills the gold ores are what are known as refractory, and have been the subject of much extensive experiment. A process has been recently discovered, however, for the reduction of

these ores, which, it is believed, will result in the great advancement of the Black Hills in the matter of gold production. The Dakota School of Mines, at Rapid City, has rendered valuable service in the investigations leading to this discovery. The fact that gold can be extracted from these refractory rocks has led to the erection of suitable reduction works, the building of other works and of numerous mills.

TIN IN THE BLACK HILLS.

The Black Hills region has the distinction of producing the first metallic tin in America. There are two well known tin districts in the Hills. One occupies a belt about five miles wide, and over forty miles in circumference, around Harney's Peak. Over 4,000 veins have already been discovered, located, and recorded in this locality. The other district is located at Nigger Hill, some miles southwest of Spearfish. This section was first worked exclusively for gold, and in it were found rich placer diggings. The miners were troubled by the vast amount of "iron" gravel, which filled the riffles of their sluice-boxes and interfered with their work. It was harder to separate from the gold than the iron of other districts, for a magnet would not act upon it. No one suspected the black substance to be tin-stone, but such it was. The American Tin Company own seventy claims, a millsite, water power, etc., in the Nigger Hill region. The tin veins of both districts are of phenomenal width, measuring from five to over one hundred and fifty feet in width. The ores run from two to over ten per cent metallic tin. In Cornwall, Eng., the veins average from three to five feet in width, and yield two per cent and less of tin. In Saxony ores as low as one-half of one per cent are successfully worked.

The Black Hills tin is very pure, and the concentrates are easily smelted. The ores are not difficult to concentrate, nor is it difficult to get rid of its mica. Many statements have been made, says Prof. Bailey, that it was next to impossible to "dress" the ores, but all such stories were originated by "interested parties" who had "plans of their own" to carry out. The proximity of coal, the abundance of water for mills, and the vast timber area covering the tin district, will all aid in the cheap reduction of this metal.

The first knowledge of the existence of tin in the Black Hills was as early as 1877, but no general interest was taken in the matter until 1883, when Maj. A. P. Simmons, of Rapid City, attracted public attention to the matter, which resulted in the following year in the organization of the Etta Tin Mining Company, which expended large sums of money but without success. The Etta was subsequently absorbed by the Harney Peak Company, which now owns two hundred veins and several thousand acres of placer lands. This company organized with a capital of $10,000,000, but, in putting its stock on the London market, was fiercely assailed by various brokers and newspapers, which resulted in the sending from England of an expert commis-

sioner, who carefully examined the field, and whose report fully established in the foreign markets the value and importance of Dakota tin. It is the opinion of Profs. Carpenter, Bailey, and others, that this resource alone will bring in an army of workmen and result in making the Hills the Cornwall of America.

Tin mining is a new industry in America, and in spite of its immense importance its development has been necessarily slow; but not slower than the original development of the silver mines of Colorado. It requires large capital to properly open and work the mines, and a larger outlay for mills than in handling the precious metals. The machinery and processes for reducing tin ore are entirely different from any other metal, and much time has been lost in fruitless experiments.

When it is remembered that all of the tin used in the United States is imported, and that the importation amounted last year to $24,000,000—and in the last ten years to over $200,000,000—the importance of developing a region capable of supplying the whole world, can be readily seen. A knowledge of the existence of this mineral here has been gained in important quarters. The recent report of the Committee on Ways and Means in the United States House of Representatives recommends an increase of the duty on tin plate to two and one-fifth cents per pound, for the reason, as assigned in the report, that there are assurances of an "abundance of tin in the Black Hills," and with this encouragement it is believed "that a great industry will spring up," and that tin plate for American use will be manufactured in this country. Already we make the sheet iron and sheet steel, which compose ninety-five per cent of tin plate.

In 1887 the United States imported nearly $24,000,000 worth of tin, two-thirds of which was in the form of tin plate. This enormous sum, or at least nearly all of it, which is paid out yearly, might be saved to our country and paid out to American industry and labor if the government would protect the home production of tin in the same manner as other industries are fostered and encouraged. Moreover, there can be little doubt that in a few years, under the imposition of a reasonable duty, the competition among home manufacturers of tin plate would bring about a substantial reduction in the prices of tinware as compared with the present cost.

OTHER RESOURCES OF THE BLACK HILLS.

Copper.—This metal has not yet been successfully worked in paying quantities, but large and well-defined veins exist. As treated at the School of Mines, the average assay yields thirty-five per cent, or seven hundred pounds of pure copper to the ton, worth at present prices, $112. In some localities the copper is found in ores bearing both silver and gold.

Smelting and Leaching Ores.—The business of smelting and leaching various ores bearing precious metals, copper, lead, and iron will be inaugurated as soon as railroads enter the Hills and give cheap transportation, with smelters and markets.

Gypsum.—This product exists in such quantities around the Hills that but little value is attached to it. Our soil does not need it as a fertilizer, but in time it will be in demand for this purpose. Burned, it produces plaster of paris, or stucco, and two factories are engaged in making it on a small scale.

Mica.—It was the working of the mica mines that led to the discovery of tin, as the isinglass is found in the granite region around Harney Peak. Over $150,000 worth has been sold from the mines near Custer City. The plates are large and clear, but the high prices of labor and transportation prevent active competition with the Eastern product.

Limes, Cement and Clays.—The limestone belts around the Hills supply not only marble, but an abundance of material for lime and cement. Along Rapid and other creeks are deposits of fire and potter's clay. The red and cream brick made at Rapid City equals the best Eastern article. Samples of kaolins or china clays have been sent East and experimented with to the satisfaction of experts.

Coal.—The coal formations encircle the entire region, but do not outcrop except in three districts, where the vein has an average thickness of six feet. It is semi-bituminous and extensively used. The coal interest is destined to be a large one.

Petroleum.—Rock oil is the product of the Wyoming side of the Hills. The oil is used for lubricating purposes. Gas accompanies the oil from the wells.

Salt.—Salt springs and wells are found in the oil districts, and the manufacture of salt is carried on in a limited way, the product being used in roasting refractory ores.

Timber.—The entire area of the Hills proper is well wooded. The density and dark color of the forests covering the mountain sides suggested the name of this region. The heavy, or Norway pine, is the most abundant and valuable tree. Black and white spruce cover the valleys of the central and northern portion. Burr oak in small groves grows on the eastern slope of the range. White elm is found along the valleys of the eastern side. Aspen, white birch, ash, mulberry, box elder, ironwood and juniper grow sparingly in many localities. The heavy pine is a tall, straight tree, free from limbs for one-half its height from the ground. The wood is white, soft, and has a straight and somewhat coarse grain, free from knots, and splitting readily into shingles, rails, etc. The wood has weight and takes a good finish. Timber from 12 to 24 inches in diameter is abundant, while larger trees are by no means rare, the general run being from 30 to 50 feet in length for saw logs. Along the valleys of

the central hills the black and the white spruce are quite common, growing thickly together, and furnish logs 25 to 40 feet long, and from 16 to 24 inches in diameter. It is estimated that at least 1,000 square miles of forests remain available for cutting and sawing into lumber, or for mining purposes. With the opening of the Sioux Reservation and the construction of railroads to the Missouri river and into North Dakota, the benefits of having a forest containing more acres of timber than is found in the entire area of Rhode Island or Delaware will be appreciated.

Agriculture.—It must not be understood that this region is solely mineral; on the contrary, the valleys and surrounding prairies are productive to prodigality. All the small grains grow, and vegetables are produced without stint. It is also one of the finest fruit sections of South Dakota, so far distant from other settlements the population had to raise their own meat and bread.

Manufactures.—The Black Hills invite the attention of capitalists and manufacturers. The variety and abundance of the crude materials of its own forests, mines and fields, are sufficient for the upbuilding of a kingdom. On every stream and in every county heavy growths of pine and unrivaled water power invite manufactories. These, united with the coal and oil region, and the construction of railroads, should make this the manufacturing centre of the West.

Hot Springs.—The Dakota Hot Springs, in Fall River county, are fast coming into prominence as a sanitarium and resort. The waters of the principal springs have a temperature of 95 degrees, and resemble in many respects the waters of certain celebrated German springs. Cases of rheumatism and diseases of the blood and skin have been wholly cured within a few weeks by the use of these waters. They have been pronounced by many individuals as equal to the waters of the famed Hot Springs of Arkansas. Ten miles from Hot Springs there is another group, known as Cascade Springs, with a temperature of only 60 degrees.

Railroads.—The Black Hills are at present connected with the outer world by a railroad, the Fremont, Elkhorn & Missouri Valley, which runs northward from Chadron, Nebraska, almost entirely through the district to Rapid City. The recent opening of the Sioux Reservation will, however, soon be followed by the building of at least two trunk lines into the Hills from the Missouri river. This will bring about consummations that have long been devoutly wished, and the fruition of hopes long deferred, concerning the development on a large scale of the many and varied resources of this wonderful region. There will doubtless be a large immigration into the Hills the present season. Those who come this year and all land-seekers, may obtain some good claims in the outlying country surrounding the timber belt, and containing the greater part of the

vacant public lands. The land office for the Black Hills is situated at Rapid City.

MINERAL RESOURCES.

Although South Dakota is justly considered to be chiefly an agricultural state, yet almost all of the treasures of the earth are known to exist within its boundaries. The full value of our mineral wealth is not understood, for no geological survey has ever been made, except in the Black Hills.

Coal.—The whole country west of the Missouri, and some of the counties east of the river, are underlaid with a deposit of lignite coal, which crops out in many places in veins of twenty feet in thickness. This lignite or brown coal, is of soft variety, excellent for heating purposes, and has been found to possess gas-making qualities. It retains to a great extent the texture of the wood from which it was formed. The proportion of carbon in the lignite is from fifty to seventy per cent. While inferior to anthracite and the best grades of bituminous coal, it burns well, gives a satisfactory amount of heat, and retains fire like coke.

In and around the Black Hills coal has been found in veins ranging from five to twenty feet thick, but, like the exposures in other parts of the state, it is too far from railroad facilities to be handled with profit. In Day county, in the Wessington Hills, at Plankinton, Huron, Yankton and other localities of South Dakota there are indications of the existence of coal at a greater or less distance beneath the surface. The newly opened Sioux Reservation is expected to develope rich coal fields. During the winter season the Indians bring in and sell to the settlers in Walworth county excellent coal procured along the Moreau river. Quite recently another vein of coal was discovered about eight miles south of Chamberlain on the west side of the river by the clerk of the court of Brule county and a number of other prominent gentlemen of Chamberlain. The vein was discovered in the high bluff on the west side of the river. The bluff being largely composed of chalk rock they brought back as much as could be conveniently carried, samples of which have been forwarded for examination. The coal is of the cannel variety and is rather light, owing to a protracted exposure to the sun and air, but burns well and reduces to a white ash. The prospectors have staked off mineral claims and the necessary tools will be at once secured for the development of the find, and if the indications as to quantity hold good, steps will be taken for the working of the vein. Croppings have been found in several places along the White river, but this is the nearest yet found to the city of Chamberlain.

Natural Gas.—The first discovery of natural gas in South Dakota was in Sully county. Subsequent finds were made in Hughes county,

at Salem, McCook county, and elsewhere. The question is now attracting the attention of certain citizens of Huron, and extensive investigations are to be made at that place, by deep drilling, in the near future.

Mica.—There are surface indications of mica along many of the rivers and streams of South Dakota, but nowhere except in the Black Hills have any attempts been made to mine it on a large scale.

Clays.—Clays of excellent quality for the manufacture of brick are abundant everywhere, and brickyards are located in all towns where there is a demand for building material. This clay is suitable, also, for the manufacture of pressed brick and terra cotta—industries already developed to some extent. In every city of the state are to be found handsome business blocks and neat dwellings, constructed of brick of home manufacture, which would do credit to any large city in the East.

Cement and Lime.—A good quality of cement and lime is made from rock found in different localities of the state, especially in the Black Hills. In Yankton county chalk rock and blue clay abound, which, when crushed, ground, and burned, is said to produce an article bettter than the genuine Portland cement. The Yankton cement will stand from 925 to 1,000 pounds pressure to the square inch, while the Portland will stand but from 525 to 600.

Granite.—The granite quarries of the southeastern part of our state furnish an inexhaustible supply of granite, equal to the finest quarried in Scotland or in the world. The "Dakota, or Sioux Falls, granite" is found at Sioux Falls, Dell Rapids, and elsewhere in the state in deposits estimated by Maj. Powell, of the United States geological survey, at from 3,000 to 4,000 feet in thickness. At Sioux Falls nearly 80 feet of the rock is exposed, and at Dell Rapids the perpendicular cliffs of quartzite on both sides of the Sioux river tower to a height of 60 feet.

The Sioux Falls granite is susceptible of a high polish and comes in a variety of pleasing shades, as chocolate, terra cotta, red, and yellow. An $80,000 plant for polishing the stone has been in successful operation at Sioux Falls for several years, the product of the establishment being various forms of ornamental building work, monumental designs, etc. The rough stone broken into small blocks for paving purposes, is sold extensively in Chicago, Omaha, and a number of other western and eastern cities. One of the several companies engaged in handling this rock reported some months since, total shipments up to the date of the report of 8,400 cars of this paving material. The quarries and polishing works give employment to a large population of skilled laborers, and form an industry of large importance. The growth of the granite industry in 1890, judging from orders already received from eastern cities, promises to exceed anything in our history.

TIMBER.

There is a lacking of trees in South Dakota, outside the Black Hills and away from the principal rivers; but there is compensation in the fact that there are no stumps to clear away to get the land ready for the plow, and also that the farmer can plant trees and have his grove where he wants it. Twenty years ago much of Kansas, Iowa and Southern Minnesota were as treeless as South Dakota is to-day, but the success of timber culture in these states is attested by numerous and beautiful groves to be seen now in every direction.

More attention is given every year, however, to the planting of trees, not only in forest groves, but in wind-breaks and for purposes of shade. Returns made to this office show twenty-one kinds of trees planted, most of which are reported doing well, to-wit: Ash, balm of Gilead, basswood, beach, black ash, box elder, butternut, catalpa, chestnut, cottonwood, elm, hard maple, hickory, locust, poplar, soft maple, walnut and willow. The acreage of the artificial forests of South Dakota in 1889, with two counties unreported, was given as 62,663 acres of cottonwood, 28,086 acres of box elder, 18,200 acres of ash, 3,448 acres of maple, and 15,590 acres of other varieties, all of the trees being one year old and over.

Many people believe that there are no forests in South Dakota, and that trees cannot be successfully grown here. These are among the grave and injurious errors held regarding our young state. The Black Hills are well wooded. Within our state are millions of acres of native forests. A large part of this timber is in the Black Hills, yet by no means all of it. There are strips of wood lands bordering many of the streams and nearly all of our lakes. Along the streams are found elm, ash, box elder, blackberry, willow, etc. There are a sufficient number of strips of timber scattered through the state to show that trees will thrive in this soil and climate.

On this subject, that of "Forestry in Dakota," a recent writer, J. C. Duffy, Esq., an old resident of the state, in an article read before the American Forestry Congress, says:

"Many seem to think that since trees do not grow naturally on the prairies, they cannot be made to grow there. With as much logic we might argue that since potatoes did not grow naturally in Ireland, that potatoes cannot be made to grow there, and yet potatoes grow nowhere better,—unless it be in Dakota. We often hear it said that Dakota climate is too dry for tree culture, but any one who will for a moment consider the many vegetables grown here, will readily see that this objection fails. Corn, potatoes, wheat, flax, cabbage, celery and many other vegetables grow here luxuriantly. Where there is sufficient moisture for these plants to grow, there is certainly enough for forest trees. The past season has been remarkably dry for Dakota, and yet I have never seen young trees make

greater growth in Michigan, the land of forests, than they have made here the past season.

"Many towns of Dakota now have more trees than Eastern towns of equal size, that occupy sites once well wooded. In the city of Brookings, where nine years since there was neither building nor tree, there are to-day miles of streets with trees on either side. Some of the earlier planted of these are thirty-six inches in circumference and forty feet high. These trees were set along the sides of the streets, and have but little care. In five years the streets of Brookings will be well shaded. The people of Dakota have great faith in forestry. Nearly every one that owns land plants trees. It is now a common thing to see on farms, other than tree claims, five acres of trees; and very few homesteads are entirely destitute of them. These groves are usually composed of several species, principally cottonwood, box-elder, ash and elm. It is officially stated that 50,000,000 trees have been planted in Dakota under the provision of the timber culture act, and it is safe to say that nearly as many more have been planted on homesteads and pre-emptions."

WATER SUPPLY.

Lakes and Ponds.—If the person into whose hands this publication may come reads but the article relating to irrigation, he may conclude that all South Dakota is an arid region, almost destitute of water courses, and entirely without lakes and natural ponds. But in various parts of the state there are numerous lakes and lakelets, notably so in the cis-Missouri district, in the counties of Brookings, Kingsbury, Hamlin, Codington, Walworth, Brown, Day, Roberts, Clark, Charles Mix, Brule, Lake, and Aurora. Some of these lakes are already very popular pleasure resorts, especially Big Stone Lake, Lake Kampeska, near Watertown, in Codington county, and Lakes Madison and Herman, in Lake county. Big Stone Lake, for fifty miles, forms the boundary between Grant and Roberts counties, South Dakota, and the State of Minnesota, and is the source of the Minnesota or St. Peter's river, whose waters finally reach the Gulf of Mexico through the Mississippi. In times of flood the waters of this lake mingle with those of Lake Traverse, the source of the Red River of the North, and thus connect, without a break, Hudson's Bay and the Arctic Ocean with the Gulf of Mexico.

The Rivers of the State.—The Missouri, the James, the Big Sioux and others are described elsewhere. The rivers and lakes of the state afford the finest hunting and fishing to the fowler and angler, in the proper seasons.

Springs and Wells.—Though water is to be had from running streams or hillside springs, it is commonly obtained from dug or driven wells. In most counties veins of excellent water are found at depths varying from a few feet to forty or more, by driving down gas pipe to

which is attached the usual style of driven well point and wire strainer. The operation is simple and inexpensive, a complete well of this sort costing from $25 to $50. In some localities, where the underground veins of water are at a greater depth from the surface, it becomes necessary to dig or bore one of the tubular pattern. A dug well will last for years without being walled. The settler in any part of South Dakota finds but little difficulty in obtaining a supply of good, pure water, either from some of the streams, lakes, marshes, and ponds, scattered throughout every county, or else by sinking a well of one of the patterns mentioned. Many of the farms have windmills attached to pumps, and so supply a constant flow of fresh water for both house use and for stock.

Artesian Wells.—In no other section of the United States — or of the world — can there be found so many artesian wells of so great a pressure and supplying such an immense volume of water as those flowing in South Dakota to-day, particularly in the valley of the James river.

At Yankton more than a dozen of these wells, from a depth of 550 to 600 feet, pour forth bountiful supplies of water. The increase in the number of wells had not the slightest effect on either the pressure or the flow from the great subterranean source. Two six-inch wells, 600 feet deep, with a pressure of fifty-six pounds to the square inch, furnish power for water works and fire protection, run an electric light plant, tow mill, feed mill, furniture factory and several printing establishments. Some idea of the power of these wells is obtained by witnessing their operation in case of fire. Four streams at the same time can be thrown over the highest buildings from any one of the high pressure wells. No steam engine is needed to help out, and the cost of the fire department is very slight.

At Mitchell, Huron, Redfield, Aberdeen, Woonsocket, and many smaller places, the artesian well is a deservedly prominent institution. The Woonsocket well, the latest one found, equals the best in volume and force, and shows that the supply seems to increase each time the great subterranean basin is tapped. These wells can be used for almost any purpose, and their possibilities are beyond estimation. They are the strongest in the world. The great well in the Place Hebert, at Paris, France,— 2,359 feet deep, with three and one-half feet bore,— throws a little over 1,000 gallons a minute, while many of the South Dakota wells, with less than half a foot bore, throw out 3,000 gallons a minute.

The artesian well district, as has been stated, now lies within the valley of the James river, but there is no known reason why this district may not be extended throughout the state. At Yankton the average depth of the strong flowing wells is about 500 feet. At Woonsocket, in Sanborn county, the sand was struck at about 700 feet and penetrated 70 feet. At Huron, Beadle county, it was

reached at 802 feet and penetrated about 90 feet. At Redfield, in Spink county, 40 miles further north, the artesian well is 962 feet deep, and at Aberdeen the sand was reached at 960 feet. The Redfield well is located on the bluff of Turtle creek, otherwise it would show some 50 feet less depth. The Aberdeen well is in the level valley. If all these wells were located at the head of the "Jim" river they would show a gradual increase of depth all the way from Yankton to Aberdeen, going from 512 feet to 960 feet. This shows the geological position of the water-bearing sand. It is continuous and almost horizontal the entire distance, and to certain persons this is a conclusive argument in denial of the theory that the artesian supply comes from the Great Lakes.

Irrigation.—The artificial application of water to the soil has, as a rule, never been needed in South Dakota. But in view of occasional droughty seasons the question of being able to regulate the amount of moisture needed by the growing crops by means of irrigating canals—supplied from artesian wells, rivers and storage reservoirs—is under serious consideration. While the rainfall is sufficient, it does not always come at seasonable times.

During the past summer a government senatorial committee visited South Dakota and were profoundly impressed with the present development of the country and the possibilities of the future. The senators expressed themselves surprised at the extent of the artesian well basin, and the great force and volume of water from the wells in the valley of the James river.

The proposition to begin a system of irrigation in South Dakota meets with opposition, in the belief that settlement may be retarded when the idea goes abroad that this process is necessary for the benefit of certain sections of the country, in order that the soil may receive sufficient moisture for agricultural purposes. The rainfall of South Dakota is, taking the year through, entirely sufficient; but it does not always come at seasonable times, and much of it is of no use. True, the rains seem to be numerous and to fall more opportunely every year, for it is a trite saying and a true one, that "the rainfall follows the plow;" but our people do not feel that they can wait ten years, which is the period commonly allowed for the equalization of the rainfall after the first development of the country.

Irrigation is entirely practicable here. The plan of making flowing artesian wells and pumping water from the rivers into the empty lake beds of Dakota, is practicable. Rainfall and melted snow can also be converted from the streams and stored in the lakes, of which there are hundreds—natural reservoirs in which water can remain until of right temperature for irrigation. Maj. Powell of the government survey suggests what he calls the "tank system" for Dakota. By this he means a pond on every farm where it is possible, for the storage of rain and snow water until needed. He says that a

twenty-acre tank filled with water to the depth of ten feet will irrigate three hundred acres of land, increase the value of the land several hundred per cent, and give a wonderful increase in yield. In his opinion, Dakota has a remarkable soil, and very little irrigation will be needed. It would not be necessary to flood the land, but only run the water over it in ditches. Every farmer living near a stream can, by means of a wind-pump, establish a little system of irrigation of his own. In 1889 the hospital for the insane at Jamestown, North Dakota, irrigated and fertilized twenty acres of garden with the waste water and sewage from the institution, and actually produced some thousands of dollars worth of vegetables, etc.

THE PEOPLE AND THEIR INSTITUTIONS.

The subjoined table gives a list of all the counties in South Dakota at present organized, with their county seats, estimated population in October, 1889, and the assessed value of the property that year. Estimating on the basis of five persons to each voter, the population of South Dakota in the fall of 1889 was 389,135—the vote for governor at the election of October 1st being 77,827. The vote and estimate of population are herewith submitted. The total value of all property in South Dakota, as returned by the assessors in 1889, was $97,342,440.60, much less than half the real worth. Only 12,610,049 acres of the nearly 50,000,000 in the state are assessed, the remaining area being yet government land, homesteads, etc., not taxable, and Indian reservations. The assessed value of land is only a little over four dollars per acre.

COUNTIES.	County Seats.	Votes Cast for Governor.	Estimated Population.	Assessed Value of all Property.
Aurora	Plankinton	1,334	6,670	$1,424,753.00
Beadle	Huron	2,893	14,465	5,000,062.00
Bon Homme	Tyndall	1,737	8,685	2,356,258.00
Brookings	Brookings	2,234	11,170	2,428,872.00
Brown	Columbia	4,607	23,035	7,899,356.00
Brule	Chamberlain	1,576	7,880	1,345,310.00
Buffalo	Gann Valley	259	1,295	214,817.00
Butte	Minnesela	326	1,630	375,759.00
Campbell	Mound City	702	3,510	449,127.50
Charles Mix	Wheeler	1,073	5,365	718,176.00
Clark	Clark	1,876	9,380	1,805,879.00
Clay	Vermillion	1,560	7,800	2,061,703.00
Codington	Watertown	2,048	10,240	2,759,058.00
Custer	Custer City	924	4,620	684,328.00
Davison	Mitchell	1,503	7,515	1,703,133.00
Day	Webster	1,883	9,415	1,301,072.00
Deuel	Gary	1,010	5,050	1,126,617.00
Douglas	Grand View	1,072	5,360	1,086,354.00
Edmunds	Ipswich	1,304	6,520	1,430,412.00
Fall River	Hot Springs	686	3,430	621,153.00
Faulk	Faulkton	1,129	5,645	1,522,776.50
Grant	Milbank	1,467	7,335	1,354,325.00
Hamlin	Castlewood	1,135	5,675	998,418.00
Hand	Miller	1,917	9,585	1,868,023.00
Hanson	Alexandria	1,086	5,430	1,217,871.00
Hughes	Pierre	1,383	6,915	1,946,256.00
Hutchinson	Olivet	1,647	8,235	2,660,434.00
Hyde	Highmore	546	2,730	848,120.00
Jerauld	Wessington Springs	942	4,710	757,512.00
Kingsbury	De Smet	2,009	10,045	2,898,895.00
Lake	Madison	1,703	8,515	2,390,002.00
Lawrence	Deadwood	3,582	17,910	3,499,038.00
Lincoln	Canton	1,967	9,835	2,798,527.00
McCook	Salem	1,511	7,555	1,087,595.00
McPherson	Leola	969	4,845	1,556,689.00
Marshall	Britton	1,293	6,465	925,327.60
Meade	Sturgis	1,121	5,605	1,000,708.00
Miner	Howard	1,234	6,170	1,313,237.00
Minnehaha	Sioux Falls	4,773	23,865	10,308,606.00
Moody	Flandreau	1,396	6,980	2,001,115.00
Pennington	Rapid City	1,625	8,125	2,349,447.00
Potter	Gettysburg	908	4,540	835,950.00
Roberts	Wilmot	411	2,055	458,660.00
Sanborn	Woonsocket	1,213	6,065	1,265,553.00
Spink	Redfield	2,957	14,785	3,803,408.00
Sully	Onida	750	3,750	1,135,997.00
Turner	Parker	2,007	10,035	2,033,280.00
Union	Elk Point	1,872	9,360	2,217,404.00
Walworth	Bangor	577	2,885	543,803.00
Yankton	Yankton	2,090	10,450	3,453,255.60
Total		77,827	389,135	$97,342,440.60

Financial Standing.—The first bonds of the new state of South Dakota sold at a *premium of nine per cent.*

Who the People Are.—It may prove interesting to know who are the South Dakotans. From the best calculations quite three-fourths of the people are American born. The sons of farmers and other citizens of Illinois, Iowa, Michigan, Wisconsin and other northern states constitute a majority of the population, the states named contributing the greater number. Then come New York,

Ohio, Pennsylvania, and the New England states; next the further west and southwest. Desirable immigration is wanted, and will be gladly and heartily welcomed to this land of promise, which is large enough and free enough for all.

EDUCATION.

Abundant provision has always been made for education in Dakota. For several years, when both states were under one territorial government, Dakota ranked many of the states in her provisions for educational purposes, raising more money by direct taxation in 1887-1888 for the support of public schools than any one of twenty-four states. Of the total number of schools in the territory the share of the new State of South Dakota is 2,978, employing 3,971 teachers. By admission, the state came into possession of two sections (Nos. 16 and 36) of land, or 1,280 acres in each township, in all more than 2,000,000 acres, enough to found an enormous school fund. In the leading towns and cities of South Dakota graded and high schools are maintained that equal in equipment, efficiency, administration, and scholarship any of the older states. The state is proud of its graded city schools, as it is of the entire public school system.

In addition to the common schools, free to all, there are several institutions for higher and special education, supported by the state, and described under the heading of public institutions, besides universities, colleges, and academies under denominational control, and all of high order. There are six colleges supported under denominational auspices.

RELIGIOUS ORGANIZATIONS.

Piety takes strong root in this free Dakotan soil, and the large church attendance bespeaks the interest and spirit manifested in religious works. There are Sunday-schools everywhere, the total attendance reaching up into the thousands. Dakota as a territory was always well represented in the national church and Sunday-school conventions, and, in the future, South Dakota will have full share in these proceedings. The educational work of the church in South Dakota is shown by several universities, colleges, and academies. The Methodists are numerically strong enough in the state to have a conference; the Episcopalians and Catholics each have a bishop, while the Presbyterians, Congregationalists, and Baptists have their own governing bodies

PROHIBITION.

Upon the adoption of the constitution by a vote of the people Article 24, the prohibition article, was voted upon separately and adopted by over 15,000 majority, the vote standing: For, 40,234; against, 34,510. This article is as follows:

No person or corporation shall manufacture, or aid in the manufacture for sale, any intoxicating liquor; no person shall sell or keep for sale, as a beverage, any intoxicating liquor. The legislature shall by law prescribe regulations for the enforcement of the provisions of this section and provide suitable and adequate penalties for the violation thereof.

The legislature of 1890 enacted stringent legislation for the enforcement of the prohibitory provision, and it will be given a fair test. Meanwhile, whatever may be thought of prohibition as a principle, it must be universally conceded that a state wherein there are no saloons, and where intoxicating liquors are not sold to whomsoever will buy, is a pretty safe state to live in, and especially a good one in which to bring up boys and young men.

NEWSPAPERS.

The never-missing factor of American civilization—the press—was set up at the very beginning of the territorial history of Dakota, at Yankton and Sioux Falls. South Dakota has two hundred and seventy-five publications—more than Minnesota, her neighbor to the east, with five times the population,—and more than the States of Vermont, Delaware, South Carolina, and Nevada combined. Every leading town has one or more dailies which rank in character and influence with much older journals of the East. The weekly papers of South Dakota, too, are creditable to the large, intelligent and moral commonwealth which has recently taken its rightful place in the great family of states, a consummation largely due to the energy and persistence of the editorial fraternity, exerted faithfully and intelligently in this cause, as in all things, for the public good.

Another strong evidence of the fact that the people of South Dakota belong to a reading and letter-writing class is shown by the number of post offices, there being a total of six hundred and twenty-seven in the state.

RAILROADS.

The railroads have been a leading factor in the growth of the Dakotas. Roads were built in advance of settlement, the expense of laying track not being as great on our prairies as among Eastern hills and Western mountains. It has not been long since one could ride for hours on express trains throughout the Dakotas and not see a house. Two of the chief railroads of the state now halt at the Missouri—the Chicago & Northwestern at Pierre, and the Chicago, Milwaukee & St. Paul at Chamberlain—both waiting for the opening of the Sioux Reservation, across the river. The early extension into the Black Hills and future completion to the Pacific coast may be expected. The present total railroad mileage of South Dakota is 2,400 miles, divided between the following companies: Chicago, Milwaukee & St. Paul; Chicago and Northwestern; Great Northern Railway,

this new system having three lines in the state; Fremont, Elkhorn & Missouri Valley; Chicago, St. Paul, Minneapolis & Omaha; Burlington, Cedar Rapids & Northern; Minneapolis & St. Louis, and Illinois Central.

BANKS.

South Dakota has in all 235 banks—32 national, 147 incorporated, and 56 private—with a total capital at the last report of $7,996,865.

MANUFACTURES.

Nature has supplied South Dakota with superior facilities for manufactures, but the country being comparatively new, with attention largely taken up with agriculture, it has only begun to avail itself of the privileges granted by fertile fields, extensive forests and limitless quarries of precious and useful metals and building stones, furnishing crude materials which need not be carried to distant cities to be fashioned into use, but may be made into food and useful articles in the very localities where they grow or exist.

Resources.—The forests of South Dakota, largely in the Black Hills, can be made for years to supply lumber for every purpose. Our quarries yield a variety of stones which cannot be excelled for general building purposes and ornamental and monumental work. The jasper along the Big Sioux river has no equal in America, and the business of handling it has become a large and valuable one. There are clays and stone, too, for brick, lime, pottery, cement, etc., and sand for glass making. The fields produce No. 1 hard wheat, from which the best flour is made, and other cereals which can be turned into bread stuffs. South Dakota is in the corn belt and produces as good quality of corn as any in the land. Flax flourishes and yields seed and fiber of superior quality. Flocks of sheep, herds of cattle, and droves of hogs can be made to furnish supplies of wool for cloth and hides for leather and meat for packing, and out of which could grow a multiplicity of industries. The capabilities of the Black Hills for manufacturing and mining are beyond estimate, and are more thoroughly noticed in our article elsewhere, devoted to that region.

Flouring Mills.—This industry is the most extensive and important one in the state, outside of the Black Hills. The statistics show that in 1889 there were five mills in the state with a capacity of over two hundred barrels of flour per day, and with an annual product valued at $1,200,000. The capital employed in these mills was $300,000. There are seventy-six mills with a capacity of less than two hundred barrels, and the value of their annual product was computed to be in excess of $3,500,000.

The Dairy.—Butter making has never received as much attention from our farmers as its importance warrants. There is always a

demand for good butter, and making it is profitable under conditions which freely exist throughout the state. In the last few years the creamery system of making butter has been introduced and no doubt the future will find the number of creameries greatly increased. The statistics of a recent report show that in the fall of 1889 there were twenty-seven creameries in the state, with an aggregate capital of $157,000, and an annual product valued at $683,000.

Cheese.—The manufacture of cheese is successfully carried on at no less than ten factories. The product is all consumed in the state, the total output being but a fraction as compared with the amount imported.

Minor Industries.—Every community has small establishments variously engaged, but there is room for more. We have wool and flax, we have cattle, sheep and hogs, we have wheat and corn, and we have nearly all the minerals known to geologists. We need more flouring mills, we need packing houses, we need flaxseed, oil, and oatmeal mills, we need woolen factories, we need wood-working shops, implement factories, iron foundries and machine shops. There is room for legions of capitalists and workers.

PUBLIC INSTITUTIONS.

South Dakota starts out on her statehood career with ten public institutions, aside from a temporary capitol building erected by the citizens of Pierre for the use of the legislature and state offices. These institutions are here only briefly described.

The Agricultural College.—This institution is at Brookings, in Brookings county, and is one of the best equipped in faculty and apparatus in the west. There are three buildings, a college hall and two dormitories, one for each sex. It receives young people who are fifteen years of age and of good moral character, and who have a competent knowledge of the common English branches and elementary algebra. The curriculum is very full and complete, equal to that of any other agricultural school in the country. In 1887 Congress established an "agricultural experiment station" at this college, and an annual appropriation of $15,000 is made out of the Federal treasury for its maintenance.

The University of Dakota.—This institution was located at Vermillion in 1862. In the year 1881 it was endowed by Congress with seventy-two sections of land. The main building is constructed of Sioux Falls stone, 104x72 feet in area, three stories high, with two wings of the same material, each 48x72, and it is one of the handsomest structures in the two Dakotas. The buildings are heated by steam and have every modern convenience. The total cost to date is $88,500. Young men and women are admitted on equal terms. A meteorological station, in connection with the United States signal service, is located at the university.

Spearfish Normal School.—The Normal School at Spearfish is professional in character, and young men and women are taught to become competent teachers, and have the advantage of actual practice in one of the best conducted primary schools in the country, which was organized in connection with the Spearfish public school. Total cost of the buildings, apparatus, permanent improvements, etc., $30,000. The legislature has since made liberal appropriations for improvements and new buildings for this institution.

Madison Normal School.—This institution, located at Madison, in Lake county, is a four-story structure, 76x84 feet. The course of study consists of four divisions, namely: elementary, requiring three years to complete; advanced, which runs with the elementary and requires four years; commercial, of one year; and professional for those who, having taken courses in other institutions, wish to fit themselves for teachers. The expenses of students are made as low as possible. Board at the dormitory is from $2.25 to $2.50 per week.

The School of Mines.—This school occupies a handsome three-story brick building, 53x37 feet, at Rapid City, in the Black Hills. The laboratory building is two stories in height, and 138x60 feet in size. The power is furnished by a Corliss engine of forty horse-power. The stamps, crushers, rolls, jigs, vanners, pans, tanks, furnaces, etc., are all of actual working size, and furnished by leading manufacturers of mining machinery.

School for Deaf Mutes.—This institution is located at Sioux Falls. It comprises two buildings which cost $53,000. The main building has two stories and an eight-foot basement. The dormitory is three stories and basement. Both buildings are made of Sioux Falls granite, and furnished throughout with water, gas, sewer pipes, and steam-heating apparatus. There is also a shop building in which trades are taught, a laundry building, barns, etc. The discipline, scholarship, and general educational advantages of the school take high rank.

Hospital for the Insane.—The South Dakota Hospital for the Insane at Yankton was the first of the kind built in any of the territories. The total cost of the original buildings and permanent improvements was $239,960. The buildings are of brick, located on high ground two miles north of Yankton; surrounded by a farm of six hundred and forty acres. The building is equipped with steam heating apparatus, water pipes, and all the latest appliances for the comfort of its unfortunate occupants.

Soldiers' Home.—There are very many old veterans of the Union army in South Dakota, and our young state has been more careful than many another older sister to "care for him who bore the battle," and is now unable to care for himself. A Soldiers' Home, costing $50,000, is now being built at Hot Springs, in the Black Hills, a most fitting location.

Reform School.—A Reform School for the reclamation and reformation of juvenile offenders is located at Plankinton. Its cost was $30,000. So far it has had but few inmates.

State Penitentiary.—The South Dakota Penitentiary is located at Sioux Falls, on a site overlooking the Big Sioux river. The main building is 54x70 feet in size, with two wings, each 51x77 feet. It is supplied with steam-heating apparatus, electric lights and water works, and large and well fitted workshops have been established. One wing of the building is used by the general government for the confinement of persons who violate Federal laws.

THE SIOUX RESERVATION LANDS.

On the 10th of February, 1890, after many years of waiting, nearly one-half of the great Sioux Indian Reservation of South Dakota was thrown open to settlement, and a great barrier in the progress of our state was removed, and another victory for progress and civilization was achieved. A commission had the previous summer treated with the Indians for the relinquishment of their rights in the land; Congress had passed a bill to carry the provisions of that treaty into effect, and prescribing the manner in which the ceded tract should be settled and occupied, and only the president's proclamation, which was issued on the date named, was needed to transfer a magnificent domain, red-peopled and virgin, from the sway of barbarism to the dominion of enlightened civilization.

The event was hailed with enthusiasm by the people of the state, especially those living east of the Missouri, hundreds of whom at once swarmed across the river, crossing on the ice, to select claims in the new land of promise. At Chamberlain and Pierre, upon the receipt of a telegram from Washington that President Harrison had signed the proclamation, cannons were fired as signals to the waiting and expectant "boomers," and within an hour hundreds of claims had been selected and two town sites established. In the towns named there was great rejoicing. Bells were rung, cannon fired, bands played, and processions marched the streets in honor of the event.

Since the admission of the state into the Union, no other incident has been so influential for her good than the opening to settlement of this vast body of land within her borders; and no other incident can be so potent for her welfare in the future until the day shall come when the last "tepee" on her soil shall be struck, the last tent folded, and the last Indian shall silently steal away beyond her confines forever. There is no longer a Chinese wall across the state from north to south, stopping human enterprise and delaying the march of civilization at the Missouri river. Railroads can now push westward to connect the Eldorado of the Black Hills with the

Arcadia of the eastern district of the state. Immigration will set in to the newly acquired region, the wilderness shall blossom like the rose, and the material development of the state will be advanced to an incalculable extent.

Homeseekers everywhere are cordially invited to come in and choose for themselves homes in this promising region. It has been wisely set apart for home-hunters exclusively. The speculator cannot acquire it, nor the land-shark gobble it up. It cannot be voted away to corporations, nor bartered to syndicates. It is for *homes* for the people. The following imperfect description of the newly opened region is submitted for the information of all concerned:

Position and Limits.—Prior to the recent cession the Sioux Indian Reservation of the Dakotas extended from the Missouri river on the east to the Black Hills on the west, from the Nebraska state line on the south to near Bismarck, in North Dakota. The portion of this reserve which the Indians have recently ceded to the United States, and which is now opened for settlement, embraces all the lands between the White and Cheyenne rivers of Western South Dakota, including the counties of Sterling, Stanley, Pratt, Presho, Lyman, Nowlin, Jackson and Ziebach, and all the lands embraced in the counties of Scobey, Delano, Rhinehart, Choteau, and Wagner, north of the Cheyenne river—and Todd county—the whole constituting an area of over 16,000 square miles, or *eleven millions of acres*, enough to give farms of 160 acres each to 72,000 families. The portion of this immense area between the White and Cheyenne rivers is undoubtedly the most suitable for agricultural purposes, and it is estimated that two-thirds of that territory is good, arable land. For the most part it is of that description known as rolling prairie. It embraces the valleys of the White, Cheyenne, Bad, and Missouri rivers, besides many beautiful basins and valleys of lesser size.

The White River Valley.—This valley lies in the southern portion of the new district, and is considered the most fertile and attractive. The White river is a stream of considerable size, which rises in Southwestern South Dakota, and winds its sinuous length about two hundred and forty miles in an easterly direction to empty into the Missouri. Nearly the entire length of its banks are fringed with a thick growth of cottonwood and box-elder trees, which will furnish lumber and fuel for the settler. The valley will perhaps average twenty miles in width, but in some places is much narrower and in others much wider. It resembles the famous Elkhorn valley in Nebraska. In its wild state it is a thing of beauty, with its expansive area of fertile plains, its tall grass waving as far as the eye can reach; its groves, through whose foliage the glint of the stream is shining; its distant hills, on whose slopes and in whose canyons there appear clusters of cedar trees. There, too, fat range cattle browse upon the nutritious grasses, even in the winter, for there, in the Black Hills,

these grasses cure upon the stem and make the country one of the best grazing regions in the world. It is certain that everywhere there are indications of coal, and the exposures of that mineral are very numerous and extensive in the bluffs along the valley. Investigations show that the upper portion of the White River valley, and indeed the entire western part of the new domain south of the Cheyenne river, is superior to the eastern half. This is because the soil of the western part is a sandy loam which holds moisture, while the rich gumbo soil of other portions is impervious to that most necessary element. Throughout the White River valley, however, there are certain to be many large and prosperous communities established. In the milder seasons of the year it is a land to dream in. He who wanders, a lonely traveler, through the silent and houseless plains, cannot but enjoy the pictures which his imagination presents of the future of this region. Because there is so much beauty, so much vegetation, so many flowers, and so many birds, all indicating the habitable nature of the valley, he imagines, or rather he reasons, with infallible accuracy, that now, when men are no longer prohibited from cultivating the soil here, the flowery wilderness will be converted into a garden spot.

The Bad River Valley.—The Bad river, which is called by the Indians the "Wakpa-Shicka," takes its rise in the western part of the reserve, and runs in an easterly direction, midway between the Cheyenne and White rivers, about one hundred and eighty miles to the Missouri. It is a narrow stream, and its valley is not more than eight or ten miles in width at the greatest. The bottom lands are rich and capable of being highly productive, like those of the White River valley. The vegetation is luxuriant, but the timber, which makes the White River valley most desirable, is rather sparse. On both sides of the valley the divides are high and broken. There are many places where these divides are singularly adapted to grazing, and it is very probable that, for this reason, both the large and small stock grower will locate in the Bad River valley, and allow his cattle to roam over the divides, which will probably remain open for some years to come. The drains and gulches of these high divides contain clusters of cedar trees which will be found very useful to the settler, and they, with the drains and gulches, will furnish excellent protection to the herds which will roam over the unoccupied lands in the winter.

The Cheyenne Valley.—This valley forms the northern portion of the new district in South Dakota. It may be described as a sort of wonderland. It contains immense tracts of good agricultural land of the description of those of the White River valley. It also contains many thousand acres, which for many years will be used exclusively for grazing. The Cheyenne is the largest of the streams which traverse the reservation. It rises in Eastern Wyoming

and flows in a general northwesterly direction, forming the southeastern and eastern boundaries of the so-called Black Hills country, and, continuing in the same course, ultimately empties into the Missouri river. Its length is about four hundred miles. There are high bluffs and extensive plateaus along its whole course, and its bottom lands are a scene of wild beauty and the seat of great fertility. The ragged bluffs are gumbo hills and very rich, but of so sticky a character as to be very hard to work, like many places in South Nebraska and Missouri, but very fertile when subdued. Its plateaus are level and fertile, and even now form the ranges of great herds of cattle. On the Black Hills side of the Cheyenne many prosperous settlers have established fine farms, where they raise not only the cereals, but blooded stock of various kinds. The country is peculiarly adapted to horse culture. The dry climate, the rich grasses, the comparatively mild winters of the western part of the reserve, the stem-cured vegetation of the comparatively dry plains, all combine to produce this condition.

The Bad Lands.—The wonderful feature of the Cheyenne valley is, however, the "Bad Lands," or the "*mauvais terres*," of the early French explorers. Nothing like them exists anywhere else in the world. They are indescribably unique, and it is impossible to give a very good idea of them by words or pictures. To be appreciated they must be seen. They are at the western extremity of the reserve, just east of the Black Hills. It is a misnomer to call them "Bad Lands," because "bad" would never be suggested by the appearance. "Mazy Land" would be far better. They are most deceitful and perplexing in their effect upon the eye and mind. In approaching them one seems to see a great white city rising from the plains, with tall spires, with roofs and chimneys, with pinnacles and minarets. It is a mistake to suppose that the "Bad Lands" are a useless area. The canyons, and some of the levels which occur in places, contain a rich vegetable growth. For this reason very extensive herds of cattle can and do find valuable grazing there. It is not at all probable that settlers will, at least for two or three generations, select lands embraced within the Bad Lands, but stock men will never fail to appreciate and make the most of the grazing advantages. On account of the remarkable character of this amazing waste, and the never-failing interest which it has for the curiosity seeker, some South Dakota citizens have proposed that the state secure a grant of the Bad Lands from Congress, and set them apart forever as a state park. Whether such a course will ever be pursued, however, remains for the future to develop.

Mineral Wealth.—It is not to be pretended that the resources of this new portion of the public domain are yet fully known. Many rumors of its vast mineral wealth have gained currency both in South Dakota and the neighboring states. In that portion which

lies north of the Cheyenne river some prospecting for gold and silver has been done by Black Hills miners, and some expeditions have already been proposed from that section for the spring. It is not well, however, for anybody to be led astray by reports of the existence of gold, outside of the Black Hills, in South Dakota. It may be found in the northwestern part of the reserve, and indications can be authoritatively said to exist, but they are not such as to cause any excitement. Miners who have prospected on the Indian territory claim the existence of gold there in paying quantities, and assert that they have only desisted from producing it by reason of the interference of the Indian police; but miners, like fishermen, do not care to admit failure, and are ingenious in excuses. It can be stated as a fact, however, that coal exists in the northwestern part of the reservation in large quantities, as has been proven by development work done there. It is not of a superior quality, as far as known, being of the lignite species, and not suitable for coke. The indications, not developed, in the country between the White and Cheyenne rivers, are that immense quantities of bituminous coal exist there.

Taken Altogether.—This new acquisition of the government, taken as an entirety, opens a new and ample field for the prospector, the farmer, and the stock man. Perhaps no other section of the Union presents so many opportunities for men of small means and for the honest and intelligent worker. But above all the opening of the tract between the Cheyenne and White rivers is like opening a gateway to a country which is not only a magnificent empire in extent, but also in richness and variety.

HOW THE NEW LANDS ARE TO BE ACQUIRED.

Under the provisions of the act of Congress known as the Sioux Reservation bill, the 11,000,000 acres will be open to settlement under the homestead law, excepting that the settler has none of the rights of commutation. A soldier may commute upon the payment of one dollar and twenty-five cents per acre, after a residence on the land sufficient, in addition to the time of service, to make up the five years' residence required. It will thus be seen that the reservation opens only to actual and *bona fide* homestead settlers. When a person desires to enter a tract of land upon which he has not established a residence and made improvements, he must appear personally at the land office and present his application, and must make the required affidavit before the register and receiver. He must then establish his actual residence (in a house) upon the land within six months from the date of entry, and must reside upon the land continuously for the period of five years. The homestead right is limited to one hundred and sixty acres. To obtain a homestead the party must, in connection with his application, make an affidavit before the register and receiver that he is over the age of twenty-one or the head of a family;

that he is a citizen of the United States, or has declared his intention to become such; and that the entry is made for his exclusive use and benefit, and for actual settlement and cultivation.

Where the wife has been divorced from, or deserted by, her husband, so that she is dependent on her own resources for support, if in fact the head of the family, she can make a homestead entry as such.

A homestead settler on any of the unsurveyed portions of the reservation must make entry within three months after the filing of the township plat of survey in the district land office.

In case of the death of the homestead party, before making final proof, the widow succeeds to the homestead right.

In case of the death of both father and mother, the right and fee inure to the minor children, if any.

A homestead right cannot be devised away from the widow or minor children.

The homestead affidavit can be made before the clerk of the county court only in cases where the family of the applicant, or some member thereof, is actually residing on the land which he desires to enter, and on which he has made *bona fide* improvements and settlement, and when he is prevented by reason of distance, bodily infirmity, or other good cause, from personal attendance at the district land office.

In such cases the applicant must state in a supplemental affidavit the facts of such settlement, improvement, and residence; when acts of settlement have been performed, and when made; the nature, extent and value of the improvements; time such residence has been maintained, and the cause, specifically, why the applicant cannot appear at the local land office. A false oath taken before a clerk of a court is perjury, the same as if taken before the register or receiver.

Upon faithful observance of the law in regard to settlement and cultivation for the continuous term of five years, and at the expiration of that time, the register will issue his certificate and make proper returns as a basis of a patent or complete title for the homestead. Upon the expiration of the time required by law for occupancy and cultivation, the party desiring to make final proof must first file with the register of the proper land office a written notice of his intention to do so. Such notice must describe the land claimed, and the claimant must give the names and residence of the witnesses by whom the necessary facts as to settlement, residence, cultivation, etc., are to be established.

The land office fees and commissions for a homestead entry upon the reservation, payable when the entry is made, will be fourteen dollars for one hundred and sixty acres.

One section of the Sioux bill provides for the right of way for the Chicago & Northwestern railroad from Pierre to the Black Hills, and also donates to Pierre a beautiful and thickly wooded island in

the Missouri river a few miles below the city. Sections 16 and 36 are reserved in each township for the benefit of the public schools.

Land offices for the new district have been established at Pierre and Chamberlain. The office at Pierre is for the northern division of the district; that at Chamberlain is for the southern division.

LAKE TRAVERSE OR SISSETON RESERVATION.

Following the Sioux Reservation there is but little doubt that in the near future the Sisseton Reservation will be open for settlement. This is a fine body of land, comprising about 1,000,000 acres, in the extreme northeastern part of the state. About 200,000 acres will probably be required for the severalty lands of the Indians upon the opening of the reservation, leaving 800,000 acres for the whites. The reservation is triangular or wedge-shaped in form, the apex to the south. It is a very rich tract of agricultural land, and its opening will add materially to the value of the counties of Roberts, Marshall, Day, Grant, and Codington, in which it is located, and correspondingly increase the wealth of the state. At present it is occupied by the Sisseton tribe of the great Sioux nation, the only branch of that nation that can boast of long continued friendship for the whites.

The Indians themselves foresee that the opening of this reservation is an inevitable event, and are prudently preparing for it. Accepting the system of severalty, the majority of them have already selected their farms, which are located mostly in the foot-hills, at the outlets of ravines, and in the hay valleys. They are ready to commence the new life when the government shall pay them what is their just due, which has already been too long delayed. This claim against the government arose as follows:

In 1862, during the memorable massacre of the whites in Minnesota by certain Sioux tribes under Little Crow, the Sissetons remained loyal, and even defended the whites, and fought against their own brethren. Subsequently they served as scouts in the subjugation of the hostiles and paved the way for white settlers all over the new Northwest. The government, to punish the hostile Indians, confiscated certain annuity lands mutually belonging to certain tribes, and in so doing carelessly made no provision for the exemption of the lands of the Sissetons. Basing their defensive arguments on a specially defined treaty, and claiming their rights on the grounds of loyalty and services rendered by them to the government, they have asked to be reimbursed, and doubtless their request will soon be acceded to.

The territory included in the Sisseton Reservation is very valuable, and varied in its character. It is composed of prairies, expansive, rich and fertile; of the "couteaux," or hills, with their peculiar structure and picturesque scenery; of timber tracts, bosky and beautiful; of splendid valleys, unsurpassed in attractions, fertility, and productiveness;

of numerous streams and lakes, together with mineral springs and many other natural features both interesting and valuable. Although the reservation itself is practically virgin and unbroken, it is in the midst of civilization, is penetrated by a railroad, etc. The settlers who may be so fortunate as to obtain a foothold here will have to be on the ground early, when it is opened. They may depend upon securing good homes for themselves, and may rest assured that their loyal Indian neighbors will give them neither trouble nor annoyance.

HOW TO ACQUIRE GOVERNMENT LAND.

The government or public lands now open in South Dakota, exclusive of the newly opened Sioux Reservation lands, which can only be taken under the homestead law, may be acquired under one of either the following laws, viz: 1. The pre-emption law; 2. The homestead law; 3. The timber-culture law.

The Pre-emption—Is in effect a contract to purchase not exceeding one hundred and sixty acres of land from the government. Residence and improvement are stipulated as conditions which must be complied with, the law requiring at least six months' continuous residence and cultivation, and giving the pre-emptor two years and nine months in which to make proof and payment. The pre-emptor must first undertake some act of improvement on the land (before filing), and is given three months from date of such beginning of settlement in which to file what is called his declaratory statement. On filing this paper he is required to pay a fee of $2 at the land office. The price of the land is $1.25 an acre.

The Homestead of 160 Acres or Less—Is free to those who complete the required term of five years' residence and cultivation. A filing fee of $4 is exacted, in addition to a supplementary fee of $10, required in all cases. On making final proof the land office fee is $4. Homesteads may be commuted, after six months' residence, etc., by proceeding the same as under the pre-emption law and paying the government price per acre.

Soldiers and Sailors—Who served in the Union army or navy may file their declaratory statements covering certain tracts of land, not to exceed 160 acres in each case, and are given six months in which to begin settlement. On filing a fee of $2 is paid at the land office. They are allowed the time of their service, up to four years, in computing the period of five years. The fee on making proof is $4.

The Timber Culture Claim, or "Tree Claim,"—Is entered under a contract to cultivate at least 10 acres of timber on a tract of 160 acres. The filing fee is $14. The claimant must break or plow at least 5 acres of land the first year; the second, cultivate the 5 acres broken and plow a second five acres; the third year plant the first 5 to trees, cuttings or seeds, and cultivate the second 5

acres; the fourth year continue the cultivation of the trees on the first 5 acres and plant the second to trees, cuttings or seeds; the succeeding 4 years to continue the cultivation as far as may be necessary of the full 10 acres. Proof may be made after 8 years, by showing compliance with the law, which requires the cultivation stated; the planting of at least 2,750 trees, cuttings or seed hills on each acre of the 10 or more acres planted, and the thrifty growth at the time of making proof of at least 675 trees on each acre of the 10 acre tract. The fee on proving up is $4, payable at the land office. It is usual to plant 12 acres instead of 10, for precaution's sake, and it is much the better plan to plant trees than seeds. A bill now pending in Congress will very likely repeal the act.

Who May Enter Land.—Heads of families, widows, single persons of either sex, of the age of twenty-one or over, and who are citizens of the United States, are the persons by whom the public lands may be acquired as above. Deserted wives, who are dependent upon their own resources for their support and that of their families, are allowed by the government, under several well-established rulings, the same rights as those of a head of a family.

Relinquishments of public lands can often be had from settlers at low prices; that is, parties who have filed on land will sell out for various reasons.

Cheap Deeded Lands.—Those who are able and prefer to invest in deeded lands in the older and better settled parts of South Dakota instead of taking up government land on the frontier, can get such lands, with or without improvements, in nearly every part of the state. The price of land is low because of the competition of the free public domain.

No Railroad Land.—There is no railroad land worth considering by home-seekers in South Dakota. There never was but one grant to railroads within the present limits of the state. This was half a million acres to what is now a part of the Chicago & Northwestern Railroad, and very little of this is left.

Land Offices.—The United States Land Offices in South Dakota are located as follows: At Rapid City, Pennington county, in the Black Hills; at Aberdeen, Brown county; at Huron, Beadle county; at Watertown, Codington county; at Yankton, Yankton county; at Mitchell, Davison county; at Pierre, Hughes county; and at Chamberlain, Brule county. The offices at Pierre and Chamberlain are principally for the newly opened Sioux Reservation. All of the land offices in South Dakota are in railroad towns.

FULL AND FREE INFORMATION.

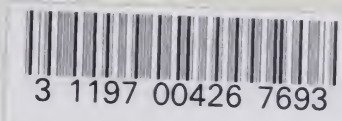
It is the business of this office to furnish the public with desired information about South Dakota, and descriptive printed matter relating to every portion of this State, with maps, etc., will be forwarded very cheerfully upon request, and to any address in this country or abroad, by

F. H. HAGERTY,
Commissioner of Immigration,
Aberdeen, South Dakota.

SEE WITHIN WHAT

SOUTH DAKOTA

HAS TO OFFER YOU.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